SERFF Tracking #: BCVT-131835459 State Tracking #: Company Tracking #:

State: VermontGMCB Filing Company: BCBSVT

TOI/Sub-TOI: ML02 Multi-Line - Other/ML02.000 Multi-Line - Other

Product Name: 2020 BCBSVT AHP Filing

Project Name/Number: /

# Filing at a Glance

Company: BCBSVT

Product Name: 2020 BCBSVT AHP Filing

State: VermontGMCB

TOI: ML02 Multi-Line - Other
Sub-TOI: ML02.000 Multi-Line - Other
Filing Type: GMCB Trend / Admin Charge

Date Submitted: 02/21/2019

SERFF Tr Num: BCVT-131835459

SERFF Status: Assigned

State Tr Num: State Status: Co Tr Num:

Implementation On Approval

Date Requested:

Author(s): Jude Daye, Martine Brisson-Lemieux, Andrew Proulx, Matthew Goodrich

Reviewer(s): Thomas Crompton (primary), David Dillon, Jacqueline Lee, Christina McLaughlin, Amerin

Aborjaily, Michael Barber

Disposition Date:
Disposition Status:
Implementation Date:

State Filing Description:

SERFF Tracking #: BCVT-131835459 State Tracking #: Company Tracking #:

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Product Name: 2020 BCBSVT AHP Filing

Project Name/Number: /

### **General Information**

Project Name: Status of Filing in Domicile:
Project Number: Date Approved in Domicile:
Requested Filing Mode: Review & Approval Domicile Status Comments:

Explanation for Combination/Other: Market Type: Group

Submission Type: New Submission Group Market Size: Large Group Market Type: Association Overall Rate Impact:

Filing Status Changed: 02/22/2019

State Status Changed: Deemer Date:

Created By: Jude Daye

Submitted By: Jude Daye

Corresponding Filing Tracking Number:

Filing Description: February 20, 2019

Thomas Crompton
Health Systems Finance Associate Director
Green Mountain Care Board
144 State Street
Montpelier, Vermont 05602

Subject:Blue Cross and Blue Shield of Vermont - NAIC # 53295 2020 Association Health Plan Rating Program Filing

Dear Mr. Crompton:

Attached for the Green Mountain Care Board's review and approval is Blue Cross and Blue Shield of Vermont's 2020 Association Health Plan Rating Program Filing.

We recognize there is active discussion in the legislature regarding the association health plan market. This filing reflects the current regulatory status of the market, establishing the formula and factors that will be used in conjunction with experience to develop rates. In the event that new legislation leads to an environmental change to this market, we will amend the filing as necessary to reflect such changes.

Please let me know if we can answer any questions or provide further information during your review.

Sincerely,

Ruth Greene

cc:Paul Schultz/BCBSVT

Martine Lemieux/BCBSVT

# **Company and Contact**

**Filing Contact Information** 

SERFF Tracking #: BCVT-131835459 State Tracking #: Company Tracking #:

State: VermontGMCB Filing Company: BCBSVT

TOI/Sub-TOI: ML02 Multi-Line - Other/ML02.000 Multi-Line - Other

**Product Name:** 2020 BCBSVT AHP Filing

Project Name/Number: /

Jude Daye, Executive Assistant dayej@bcbsvt.com
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Montpelier, VT 05601

**Filing Company Information** 

BCBSVT CoCode: 53295 State of Domicile: Vermont PO BOX 186 Group Code: Company Type: Hospital

Montpelier, VT 05601 Group Name: Service Corp (802) 371-3450 ext. [Phone] FEIN Number: 03-0277307 State ID Number:

# **Filing Fees**

Fee Required? Yes

Fee Amount: \$150.00

Retaliatory? No

Fee Explanation:

SERFF Tracking #:	BCVT-131835459	State Tracking #:	Company Tracking #:

State: VermontGMCB Filing Company: BCBSVT

TOI/Sub-TOI: ML02 Multi-Line - Other/ML02.000 Multi-Line - Other

**Product Name:** 2020 BCBSVT AHP Filing

Project Name/Number: /

# **Supporting Document Schedules**

Satisfied - Item:	Actuarial Memorandum
Comments:	
Attachment(s):	2020 BCBSVT AHP Rating Program Filing - Actuarial Memorandum.pdf
Item Status:	
Status Date:	
Bypassed - Item:	Civil Union Rating Requirements
Bypass Reason:	Not required.
Attachment(s):	
Item Status:	
Status Date:	
Satisfied - Item:	Filing Compliance Certification
Comments:	
Attachment(s):	Filing Compliance Certification.pdf
Item Status:	
Status Date:	
Bypassed - Item:	Third Party Filing Authorization
Bypass Reason:	BCBSVT does not use a Third Party to submit filings.
Attachment(s):	
Item Status:	
Status Date:	
Satisfied - Item:	Cover Letter
Comments:	
Attachment(s):	2020 BCBSVT AHP Rating Program Filing - Cover Letter.pdf
Item Status:	
Status Date:	
Satisfied - Item:	F106 Form
Comments:	
Attachment(s):	F106 2020 BCBSVT AHP Filing .pdf
Item Status:	
Status Date:	
Attachment(s): Item Status:	F106 2020 BCBSVT AHP Filing .pdf

State:	ermontGMCB Filing Company: BCBSVT
TOI/Sub-TOI:	IL02 Multi-Line - Other/ML02.000 Multi-Line - Other
Product Name:	020 BCBSVT AHP Filing
Project Name/Number:	
Satisfied - Item:	Plain Language Summary
Comments:	
Attachment(s):	2020 BCBSVT AHP Rating Program Filing - Plain Language Summary.pdf
Item Status:	
Status Date:	
Satisfied - Item:	Addendum A
Comments:	
Attachment(s):	2020 BCBSVT AHP Rating Program Filing - Addendum A.pdf
Item Status:	
Status Date:	
Catiofied Item.	T.A. i. i.e.
Satisfied - Item:	Exhibits
Comments:	
Attachment(s):	2020 BCBSVT AHP Rating Program Filing - Exhibits.pdf
Item Status:	
Status Date:	

Company Tracking #:

SERFF Tracking #:

BCVT-131835459

State Tracking #:

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### 1. Purpose

Blue Cross and Blue Shield of Vermont (BCBSVT) performs association health plan (AHP) rating on a case-by-case basis. Rating is accomplished through a formulaic approach that blends recent group experience with a manual rate according to a credibility formula. Formula results may be adjusted for underwriting judgment and/or management decisions. This filing establishes the formula, manual rate, and accompanying factors that will be used for renewals beginning upon approval of this filing, most notably January 2020 renewals.

Once approved, this filing will be used for AHP renewals prepared for business under the jurisdiction of the Green Mountain Care Board (GMCB) until superseded by a subsequent filing. In the event that renewals require factors with effective dates or experience periods beyond those explicitly presented in this filing, we will calculate appropriate factors using the same base data and methodology used in this filing. This filing will apply beginning with rates communicated five business days after the date of its approval, and continuing until five business days after the date of approval of the next BCBSVT AHP Rating Program Filings. The term "communicated," for this purpose, means a written proposal delivered to an association health plan account.

#### 2. Overview

This filing includes a description of the renewal formula and the development of each of the factors used in it. We will describe in detail the formula used in the renewals. We will then detail the factors applicable to all insured AHPs. The factors in the build-up of the projected claims cost include the trend factors, benefit relativities, manual rate, and large claims factors. In addition to the projected claims cost, we will explain the calculation of administrative charges, the net cost of reinsurance, contribution to reserve, and state and federal assessments, all of which are included in the rate development.

### 3. Formula Description

### Benefit-Adjusted Projected Single Claims Rate

A sample calculation of the benefit-adjusted single claims rate can be found as Exhibit 1A. We start the rating with a twelve-month experience period with at least two months of runout<sup>1</sup>. We determine a pooling point based on the size of the case at the end of the runout period and split the experience period claims (line A) into amounts above (line B) and below (referred to as capped claims, line C) the pooling point.

<sup>&</sup>lt;sup>1</sup> For first year renewals, where twelve months of experience is not available, we generally use claims incurred in nine months with no runout.

We apply completion factors (line D) developed from the monthly financial reporting process (best estimates before margin) to capped claims to produce completed capped claims (line E). We use the formula and factors described in Milliman's 2017 Health Cost Guidelines - Reinsurance to calculate expected claims above the pooling limit (line F). The expected claims above the pooling limit are added to the completed capped claims to produce large-claim-adjusted experience period claims. We then multiply the large-claim-adjusted experience claims by an adjustment factor (line G) to reflect structural changes in the benefit plan from the experience period to the rating period. This is to adjust for such things as mandated benefit changes, contractual provision changes, etc., that, in the judgment of the underwriter, are necessary to make the experience appropriate for the estimation of the expected claims in the rating period. We divide the result (line H) by the number of member months during the experience period (line I) to produce adjusted experience period claims per member per month (line J).

The adjusted experience period claims per member per month (PMPM) is then divided by a seasonally adjusted benefit relativity value to neutralize any effect of seasonality and benefits on the paid claims. To determine this factor, we first determine a benefit relativity factor for each benefit plan (using the factors described in section 5) and contract tier type (single, 2-person, family, etc.). Based on the seasonal patterns observed as part of the reserving process for each calendar month, we determine seasonal factors for CDHPs and for non-CDHPs and normalize them so that they total to 12. We combine these factors to calculate seasonal benefit relativity factors for each combination of benefit plan, contract tier type, and month. We apply these factors to the number of contracts for each benefit plan, contract tier type, and month in the experience period. We total the results and divide the resultant sum by the number of member months in the experience period. The seasonal factors are applied regardless of the length of experience period, but if there is a 12-month experience period and there are no changes in benefits or enrollment, the normalization of the seasonality factors would cause the seasonal adjustment to be 1.000. This produces the average experience period seasonally adjusted benefit relativity factor (line K).

We adjust for any change in the demographics of the group between the experience period and the rating period by calculating the average demographic factor for each period and applying the ratio of projection to experience (line L). The adjusted experience period claims PMPM (line J) is multiplied by the demographic normalization factor and divided by the average experience period seasonally adjusted benefit relativity factor (line K) to produce the benefit-adjusted experience period single claims rate (line M), which is the expected cost for a single contract in the experience, neutral of benefit and seasonality. We then multiply this by a trend factor (line P, as calculated in section 4) to project the claims from the experience period to the rating period. We also multiply by a factor (line Q) to account for differences in contracted pharmacy discounts between the experience period and the projection period.

The resulting projected single contract rate (line R) is then blended, using the credibility formula described below, with the adjusted manual rate (line S, as described in section 6.1).

The credibility factor (line T) is calculated as follows:

$$Credibility = \sqrt{\frac{Member\ Months}{Upper\ Bound}}$$

The underwriter will determine an appropriate pooling limit based on the size of the association health plan. A list of upper bound member months by pooling point is provided in Exhibit 1C.

If member months are greater than the upper bound, the credibility factor will be 1.

To blend the projected single contract rate with the adjusted manual rate, we use the following equation:

Benefit-Adjusted Projected Single Claims Rate = Projected Single Contract Rate  $\times$  (Credibility) + Adjusted Manual Rate  $\times$  (1 - Credibility)

### Required premium by Plan, Tier Type

A sample calculation of premium can be found as Exhibit 1B. For each plan and contract tier type anticipated in the rating period, we calculate projected claims (line B1) as the product of the benefit-adjusted projected single claims rate (S) and the benefit relativity factor (as described in section 5) for the plan and contract tier (line A).

The members per contract tier during the last month of the runout period is the basis for the projected members per tier in the rating period. The underwriter will adjust this ratio if, in their opinion, the result is not representative of the expected values in the rating period.<sup>2</sup>

The calculation for the total required premium by (plan, tier) is as follows:

<sup>&</sup>lt;sup>2</sup> E.g., the number of contracts in a particular tier may be small (or even 0). In such instances, the underwriter should use appropriate values based on total block of business or other appropriate source.

{ Projected Claims by Plan and Tier (line B1)	+
Expected Net Cost of Reinsurance (line B2, as described in section 6.4)	-
Projected Pharmacy Rebates (line B3, as described in section 6.5)	+
Administrative Charges (line D, as described in section 6.3)	+
State Mandates and Federal Assessments (line C1 to C4, as described in	/
sections 6.7 and 6.8)	
{ 1 - Contribution to Reserve (line F, as described in section 6.6) - Broker	=
Commissions (line E) - Federal Insurer Fee (line G, as described in section	
6.8)}	
Required Premium by Plan and Tier (line H)	

### **Underwriting Judgment Adjustments**

If, in the underwriter's professional judgment, the specific properties of the case being rated are such that the standard formula would not produce appropriate rates for the rating period, the underwriter will make such modifications as needed to produce appropriate rates. The underwriter will document in the case file the reason(s) for the adjustment(s) and the method of determining the appropriate adjustment(s).

### Management Discretionary Adjustments

For marketing or other reasons, management may decide to modify the rates on a specific case or block of cases. The underwriter will document in the case file the adjustment(s) made, along with a description of the nature of the adjustment(s).

#### 4. Trend Factors

### 4.1. Medical Trend Development

The source of the data is BCBSVT's data warehouse, except where noted below. To ensure accuracy of claims information, the data used has been reconciled against internal reserving, enrollment, and other financial reports. The data includes claims from BCBSVT Cost Plus groups, BCBSVT ASO Groups of under 5,000 members, BCBSVT insured large groups, BCBSVT insured small groups, TVHP insured small groups, and TVHP insured large groups. CDHP and non-CDHP claims were combined. Large ASO groups and ASO groups with special pricing arrangements were excluded. Claims from Medicare Primary members were excluded.

BCBSVT and TVHP cover substantially similar populations under similar benefit packages. Combining these homogeneous populations creates greater consistency and credibility within the trend factor development.

Using the historical contracted reimbursement schedules, we calculated network factors that represent the different contracts and modify the claims to reflect a single

contract. By making these adjustments we can observe the historical cost increases using all claims information.

Medical trend is composed of three pieces: cost, utilization, and intensity. In our analysis, we combined utilization and intensity within the utilization metric and analyzed the unit cost separately. Historical experience was normalized for contract changes and then analyzed to derive a utilization trend in the absence of unit cost changes. Future unit cost trends were developed on a discrete basis using the most recent round of contract negotiations as a starting point. The overall trend is the product of these two components.

#### 4.1.1. Unit Cost

Unit cost trends were largely derived from observations of recent contracting and provider budgetary changes. During the year ended June 2018, roughly 52 percent of total claims dollars were provided by Vermont facilities and providers directly affected by the hospital budget review process of the Green Mountain Care Board (GMCB). We started with the assumption that the GMCB would approve hospital budgets for October 1, 2019 and October 1, 2020 that support identical commercial increases as those approved for October 1, 2018.

Similarly, we assumed for other providers within the BCBSVT service area that overall 2019 and 2020 budget increases would be identical to those implemented during calendar year 2018. The provider contracting and actuarial departments worked together to assess the impact these increases would have on contracts for BCBSVT Managed Care. Unit cost increases for providers outside the BCBSVT service area were derived from the Fall 2018 Blue Trend Survey, which is a proprietary and confidential dissemination of the BlueCross BlueShield Association.

Claims were normalized to the June 2018 contract at each unique provider by applying a factor equal to the product of the impact of each contracting change from the experience month through June 2018. The derived trend for other claims was assumed to increase monthly on a continuous basis. Please see Exhibit 2A for an illustration of this approach.

Contract normalized claims were trended forward using expected increases. Unit cost trend was calculated by dividing claims year-ending December 2020 by claims year-ended June 2018 and converting to an annual factor.

The results of the analysis are summarized in the below chart:

Medical Unit Cost Trend		
	BCBSVT	
	Managed Care	
Vermont facilities and providers impacted		
by GMCB's Hospital Budget Review	2.6%	
Other facilities and providers	3.0%	
Total	2.8%	

### 4.1.2. Utilization & Intensity

Historical utilization trend patterns were examined by first normalizing claims for unit cost increases. Contract changes for the entirety of the experience period were measured explicitly for each facility within our service area as well as the three largest physician groups. We removed all claims from members who exceeded \$500,000 in paid medical claims in 12-month periods preceding June 30, 2018. As the utilization component includes intensity, high cost claimants can unduly impact the year-over-year, time series, and regression calculations.

Increases were measured for fee schedules and other chargemasters by applying each schedule to a market basket of services. The market basket was defined by using Current Procedural Terminology (CPT) codes and CPT modifier combinations that were present in each of the effective periods the schedules covered. Using the same experience period data used throughout the trend analysis, total allowed costs for the selected CPT and CPT modifier combinations were compared under each schedule to estimate the percentage increase. For contracts under Diagnosis Related Group (DRG) arrangements, we compared the charge for the 1.000 DRG service for each period. Finally, for services under a discount of charge arrangement, we used the contracted chargemaster increase provided by our provider contracting department.

This accounted for 78 percent of allowed claims dollars during the experience period. Costs for other claims were primarily for out-of-area services. Contracting changes for these claims were derived from the Fall 2018 Blue Trend Survey, which is a proprietary and confidential dissemination of the BlueCross BlueShield Association.

Exhibit 2B, Page 1 shows the resulting array of allowed PMPM claims costs, before and after normalization for contract changes. We performed regressions and time series on monthly PMPM costs. We also calculated a year-over-year rolling-12 PMPM utilization trend of 3.9 percent for the year ended June 2018. The regression and time series calculations are provided in Exhibit 2B, Pages 2 to 11. Certain time series methods, such as those assuming no trend or those for which there is not sufficient historical

data<sup>3</sup>, are not included, as these are inappropriate for use in trend development and/or for the data available.

We select a utilization trend of 3.5 percent. Though utilization trend between facility and professional services are interdependent, the historically high trend warrants an indepth examination of trends that is best performed categorically. We believe a 2.5 utilization trend selection on facility claims and a 5.5 percent utilization trend selection on professional claims represent reasonable and appropriate trends. The total trend produced from these components is in line with the trends from measures that combine all medical services, and informs our selection of an overall utilization trend of 3.5 percent.

Certain measures suggest a much higher utilization trend, which is primarily driven from abnormally high professional utilization and mix-of-services trends. Professional visits increased 3.4 percent year-over-year, which, in conjunction with an increase in services per visit and an increase in the cost of the mix of services, underlies the atypically high year-over-year professional utilization trend of 6.3 percent. Professional utilization trend is being driven by significant increases across the spectrum of professional services, including increases in primary care services, mental health and substance abuse services, labs and radiology services, and labs and radiology mix of services. Our selection of 5.5 percent is lower than the majority of trends provided in the regression and time series analysis for professional claims. We believe certain BCBSVT programs will be effective at mitigating high professional trends, and implicitly account for these programs through a selection of a lower trend to reflect the anticipated success of appropriate care management strategies.

Year-over-year inpatient days per 1,000 members remained stable. Historically, inpatient days per 1,000 members had decreased as services moved away from an inpatient setting, which helped to offset increases in utilization and intensity trend in other areas. We believe inpatient utilization will continue to remain stable in the future and will no longer offset other components of utilization trend. Inpatient cost per admit normalized for contract changes increased 6.0%. This reflects an increasing cost in the mix of services, which is another major driver of total utilization trend. Components of hospital services, such as drugs and injectables administered in a facility, continue to be a main component of the increasing cost of the inpatient and outpatient mix of services. We anticipate the cost and utilization of drugs will continue to drive high inpatient intensity trends.

The components of increasing utilization trend have been corroborated by our Chief Medical Officer. Increasing utilization and intensity is also corroborated by hospital actual-to-budget narratives. The impact of low cost trend changes are largely offset by

<sup>&</sup>lt;sup>3</sup> The seasonal additive, seasonal multiplicative, single moving average, and single exponential smoothing methods are not used since they assume no trend. The double moving average method is not used due to insufficient historical data.

increasing utilization and intensity, which is acknowledged as a main driver of hospital budget overages.

#### 4.1.3. Induced Utilization

We investigated the impact of benefit changes throughout the experience period on utilization. Previously, large groups engaged in a benefit buy-down strategy as a means of limiting rate increases. This may have manifested itself in a lower actuarial value over time and a dampening effect on trend due to decreases in induced utilization. A development of the impact of induced utilization is shown in the table below:

Year Ended	Paid-to-Allowed Ratio	Induced Utilization	Percent Change
July 2015	74.7%	1.0509	
July 2016	74.1%	1.0483	-0.2%
July 2017	74.2%	1.0483	0.0%
July 2018	73.8%	1.0468	-0.1%

Given the impact of induced utilization has been minimal over the past few years, we do not make an adjustment to utilization trend.

The concept of induced utilization is discussed further in section 5.1. Exhibit 2C shows the development of the induced utilization factor.

#### 4.1.4. Total Medical Trend

The total medical trend factors are the product of the utilization trend and the unit cost trend factors.

	BCBSVT
Component	Managed Care
Cost Trend	2.8%
Utilization Trend	3.5%
Total Medical Trend	6.4%

### 4.2. Pharmacy Trend Development

The source of the data is BCBSVT's data warehouse, except where noted below. To ensure accuracy of claims information, the data used has been reconciled against internal reserving, enrollment and other financial reports. The data includes claims from BCBSVT Cost Plus groups, BCBSVT ASO groups, BCBSVT insured large groups, BCBSVT insured small groups, TVHP insured small groups, and TVHP insured large groups. Combining these homogeneous populations creates greater consistency and credibility within the trend factor development. Claims from Medicare Primary

members were excluded. Compound drugs claims were excluded. The data from ASO groups whose pharmacy benefits are not administered through the BCBSVT contract with ESI were excluded. Large ASO groups who offer benefits atypical to the large group marketplace were excluded. We used claims incurred from July 1, 2014 to June 30, 2018, paid through September 30, 2018. Completion factors were applied to estimate the ultimate incurred claims for each period shown in the exhibits.

ESI has been the pharmacy benefits manager for BCBSVT since July 2009. The initial ESI contract was for a period of three years; new contracts became effective July 2012, July 2015, and January 2018. We base our cost trend calculation on Average Wholesale Price (AWP) and apply a factor to the rating formula to account for the contracting changes. We analyzed the components of trend (cost and utilization) separately for brand and generic drugs. We estimated the impact of brand drugs going generic based on the brand drugs that are scheduled to lose patent in the projection period. Specialty drugs are very high cost drugs with low utilization. Because of their relative infrequency, it is more appropriate to look at the overall PMPM trends for these drugs rather than separate cost and utilization components. The overall pharmacy trend is calculated by combining the separate projections.

### Non-Specialty Drugs

Exhibit 2D provides the monthly and the 12-month rolling data, along with the corresponding year-over-year and exponential regression trends, for non-specialty drugs. These are shown separately for the generic cost, brand cost, and overall non-specialty utilization categories. The number of days supply, rather than the number of scripts, was used to normalize for changes in the days supply per script (e.g. increased use of 90-day fills). Because there are several popular brand drugs that have become generic during the experience period, or will become generic during the projection period, we combined the data for generic and brand drugs for the purpose of analyzing utilization patterns. The regressions use 24 data points on the monthly data in order to best capture an adequate amount of the most recent history of drug costs. We select annual trends of 3.5 percent for generic cost, 5.9 percent for brand cost, and 0.0 percent for total non-specialty utilization.

Instead of explicitly projecting a generic dispensing rate, we separated the drugs into six categories:

- Generics
- Brands going Generic: brands that are expected to become available in generic form in the projection period, based on a list from our pharmacy benefit manager
- Vaccines
- Over the Counter (OTC)
- Compounds
- All other Brands

As shown in Exhibit 2F, each category days supply is trended forward at the same rate of 0.0 percent. Exhibit 2F summarizes the trends for non-specialty drugs and calculates the total non-specialty allowed drug trend as 1.5 percent.

### **Specialty Drugs**

The introduction of certain new specialty drugs requires an adjustment to the specialty drug trend calculation. High-cost or high-utilization drugs have entered the market recently, such as Orkambi, a treatment for cystic fibrosis with an annual cost of almost \$250,000, and PCSK9 inhibitors like Repatha, used to treat high cholesterol in patients with the genetic disease familial hypercholesterolemia (FH) who have failed one statin and patients who have suffered a heart attack and failed two different statins. To accurately capture the effect of these new drugs on specialty trend, we removed their claims from the experience to calculate a trend rate to apply to these non-excluded claims. We trended those claims forward at the calculated rate for 30 months, then added back in our projections of claims for the new treatments (Orkambi, Ocrevus, and PCSK9 inhibitors). We used the total restated projected claims to calculate a restated specialty trend. Any cost estimates for excluded drugs developed using demographic estimates are calculated using the same membership and/or claims underlying pharmacy trend development.

Exhibit 2E, Page 1 shows the calculation of specialty trend both for all specialty drugs and for specialty drugs excluding the new treatments described above. For our regressions, we chose 24 points of 12-month rolling data to capture the most recent history of drug costs. A rolling 12-months regression is more appropriate for specialty drugs because of the low-frequency, high-cost nature of these drugs. The total specialty trend is 18.5 percent. Removing the large cost increases associated with the new treatments results in an 18.4 percent trend for the remaining specialty drugs.

PCSK9 inhibitors such as Repatha are used to treat high cholesterol. BCBSVT's current policy is to approve PCSK9 inhibitors for the treatment of familial hypercholesterolemia (FH), a genetic disease characterized by very high levels of cholesterols in the blood, after failure of one high-does statin for 60 days. Current incidence studies suggest that 200 persons per 100,000 lives are diagnosed with FH. Another indication for these drugs is for patients who have had a heart attack and then failed two different high-dose statins for 60 days. Based on current membership, we project 19 members will use a PCSK9 inhibitor in 2020. With an average annual cost from the trend experience of about \$14,176, the projected total is \$269,351.

Orkambi is a drug used in the treatment of cystic fibrosis. In particular, it is used to treat a specific mutation of the disease that is found in roughly 50 percent of cystic fibrosis patients. Orkambi is prescribed to patients age 12 and older. In previous filings, we assumed that 50 percent of our members diagnosed with cystic fibrosis who are at least age 12 will take Orkambi. Three members in the experience period had claims for Orkambi. Given the length of time the drug has been available, we expect we will see

no change in utilization and add in \$388,607, which is the annual experience cost of the claimants.

Ocrevus is a drug used in the treatment of multiple sclerosis (MS). We estimate 15 percent of our members currently taking medication for MS would move to Ocrevus. We therefore excluded 15 percent of the average annual cost of MS medications from specialty claims to reflect this shift, and added in the estimated cost of Ocrevus. No adjustment was made to the experience used to develop the non-exclusion specialty trend, since only a proportion of claims are removed.

To calculate the restated specialty trend, we started with the pharmacy claims from the year ended June 30, 2018 experience period and removed the claims for PCSK9 inhibitors, Orkambi, and MS drugs to be replaced by Ocrevus. We then trended the remaining claims at an 18.4 percent rate for 30 months and added the incremental cost of PCSK9 inhibitors, Orkambi, and Ocrevus for a total restated projected claims. Using this method, the restated specialty drug trend is 18.0 percent. See Exhibit 2E, Page 2 for details. The impact of excluding certain specialty drugs has had an increasingly small impact on specialty trend. We will continue to monitor the impact of the introduction of new specialty drugs on trend, but will consider removing this adjustment in subsequent filings if the impact remains inconsequential.

### **Total Pharmacy Trend**

Using the PMPM claims as weights between non-specialty and specialty claims for the 12 months ended June 2018, we applied the annual trends for 30 months and calculated the following:

Allowed Pharmacy Trend		
Category Annual Trend		
Generic	3.5%	
Brand	5.9%	
Brands Going Generic	-43.4%	
Specialty	18.0%	
Total	9.1%	

Please note that contract changes are applied separately from trend in order to accurately capture the timing for each renewal.

### **Contract Adjustment Factors**

For drug claims in the year ended June 30, 2018, we took the AWP of the claims and applied the contracted discounts and dispensing fees, if applicable, for each potential renewal experience period and rating period to calculate adjusted allowed charges. The contract adjustment factor for each experience and rating period combination is the ratio of the adjusted allowed charges.

Applying the discount adjustment from the experience used to develop trend to a 12-month rating period, we calculated a 7.8 percent effective annual trend.

Exhibits 3G contains the contract adjustment factors that will be applied to the drug claims in a group's renewal. These factors assume that both the experience period and rating period are 12 months. For cases where this is not true, or for periods not provided in the exhibit, we will calculate an appropriate factor using an analogous methodology.

#### 4.3. Overall Total Trend

Using the year ended September 2018 claims experience for the groups included in the manual rate (see section 6.1), the overall allowed trend is

Category	Allowed PMPM	Allowed Trend
Medical	\$ 453.25	6.4%
Pharmacy	\$ 96.72	7.8%
Total	\$ 549.97	6.6%4

While we have included no implicit or explicit margin in our trend selections, we recognize that an environmental change may create a significant shift in either direction. We would submit an interim trend filing should information become available that meaningfully differs from the underpinnings of the trend analysis in this filing.

### 4.4. Leveraged Trends

The above trends are based on allowed charges and do not account for the leveraging effect of deductibles and copays. We measured the correlation between historical leverage factors the actuarial values (AVs) of the benefits and fit a curve to the results. For medical leverage, we fit a line to all medical products, including the medical portion of integrated CDHP benefits. For drug leverage, we found that using different lines for different types of drug benefits produced the best fits. We produced three lines: one for drug cards, one for CDHPs with wellness drugs covered at 100%, and one for all other CDHPs. The formulas for leverage are below:

Leverage Formulas		
Medical	-0.0385 x (AV) + 1.0389	
Drug Card	-0.0680 x (AV) + 1.0691	
Drug - CDHP 100% Wellness	-0.0559 x (AV) + 1.0564	
Drug - All Other CDHP	-0.0723 x (AV) + 1.0722	

See Exhibits 3E and 3F for examples of leverage factors.

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<sup>&</sup>lt;sup>4</sup> The allowed trend without the pharmacy contract adjustment is 6.9%.

Applying the leverage factors for benefits present in the year ended September 2018 for the groups included in the manual rate, we calculate the following paid trends:

Category	Paid PMPM	Paid Trend
Medical	\$ 367.85	7.2%
Pharmacy	\$ 85.18	8.6%
Total	\$ 453.03	7.5% <sup>5</sup>

#### 5. Benefit Factors

To determine standardized claims rate relationships, also called relativities, BCBSVT has created models that simulate the impact of member benefits for all types of plans. The models determine the allowed charges for the 12 months of claims included in the study and "re-adjudicate" the claims, thereby simulating the impact of member cost sharing for a given benefit plan.

Claims data is from BCBSVT's data warehouse. To ensure accuracy, the claims data used has been reconciled against internal reserving, enrollment and other financial reports. The starting point of the analysis is allowed charges as determined by the BCBSVT claims adjudication system. The claims data includes benefit codes that enable us to identify the services and benefit structures (copays, deductibles, and coinsurance) for each claim.

Incurred allowed charges from July 2017 to June 2018, paid through September 2018, were used in the models. The allowed charges were trended 30 months to the 12-month period that begins January 1, 2020.

The data includes claims from BCBSVT Cost Plus groups, BCBSVT ASO groups, BCBSVT insured large groups, BCBSVT insured small groups, and TVHP insured large groups. Combining these homogeneous populations creates greater consistency and credibility within the relativity factor development. Claims from certain large ASO groups were excluded, as the rich benefits offered by those groups were not in line with the leaner offerings of most insured large groups. CDHP and non-CDHP claims were combined. We also excluded groups that have special benefits. This predominantly refers to groups that have specific reimbursement with particular providers outside of BCBSVT's contracts and/or claims processing function. We excluded claims from groups that do not have pharmacy coverage through BCBSVT.

For each benefit plan, the models produce the simulated PMPM values of the benefits. The PMPM for each plan is then divided by the average trended paid claims rate from the BRV experience period to produce its benefit relativity (BRV). Relativities are included for medical only plans, Rx only plans, and integrated CDHP plans.

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<sup>&</sup>lt;sup>5</sup> The paid trend without the pharmacy contract adjustment is 7.7%.

### 5.1. Models for Active Employees

### Benefit Relativity Model: Medical

The trends used were the total medical trend, by type of service. Cost trends for each type of service were calculated by the discrete unit cost trend method above, while separate utilization trends were developed for facility and professional services (see section 4.1.2).

Using the contracted reimbursement schedules, we calculated network factors that represent the different network contracts. Using these factors, we can include all claims in each of the three networks by adjusting each claim to the basis of a single network. This enables us to combine all the experience for each plan design.

The claims were categorized according to how benefits are paid, and one record was generated for each member, date of service, and type of service. Each record was then assigned a cost share (deductible/coinsurance, copay, covered in full) for each plan modeled. For all products, claims for preventive mandated benefits were assigned a "covered in full" cost share, independently of the product that is being modeled.

The model tests one benefit design at a time. It determines the member portion of the allowed charges, and from this, a total simulated paid PMPM for each benefit design. The impact of copay, deductible, coinsurance, out-of-pocket maximum, and preventive mandated benefits are all considered. If the average allowed cost of a category is less than the copay being examined, it is assumed that the member paid the full cost of the service.

BCBSVT offers products on several different networks based on the two provider contracts (BCBSVT Managed Care and BCBSVT Non-Managed Care). Depending on the network, there may be more than one tier of coverage (generally referred to as innetwork and out-of-network) and different networks may have different providers in each tier. Below is a chart showing which providers are in which tiers on many of BCBSVT's common networks. Providers who accept the indicated provider contract are considered to be in-network. For providers in the BlueCard® network and non-participating providers, 'In' indicates coverage for these providers on the in-network tier of coverage, and 'Out' indicates coverage for these providers on the out-of-network tier of coverage.

Network Name	Provider Contract	BlueCard Providers	Non-Participating Providers
VHP Select	BCBSVT Managed Care	N/A	N/A
VHP	BCBSVT Managed Care	Out	Out
EPO PCP	BCBSVT Managed Care	In	N/A
VHP Open Access	BCBSVT Managed Care	In	Out
EPO	BCBSVT Non-Managed Care	In	N/A
PPO	BCBSVT Non-Managed Care	In	Out
Indemnity	BCBSVT Non-Managed Care	In	ln

If BCBSVT were to quote a product not on one of the networks listed above, or one featuring different provider networks for selected services, we would modify the base data in the BRV models to correspond to the desired changes (for example, excluding certain providers or modifying allowed amounts) before simulating the benefit impact.

We use BRVs in two places in the rating formula described in section 3. The average experience period seasonally adjusted benefit relativity factor (line K in Exhibit 1A) is calculated using BRVs for the benefits in the experience period, while the projected claims for the rating period (line B1 in Exhibit 1B) uses BRVs for the benefits in the rating period.

The relativities for active employees for some medical products currently in our book of business are displayed on Exhibits 3A and 3B.

#### Benefit Induced Utilization: Medical

Our factors for the impact of induced utilization (IU) are a blend of factors developed by the federal Department of Health and Human Services (HHS) for use with Qualified Health Plans and factors developed from BCBSVT data. The HHS factor receives a weight of 0.75 and the BCBSVT factor receives a weight of 0.25.

We found the curve of best fit for the HHS factors of  $IU = AV^2 - AV + 1.24$ , where AV is the actuarial value of the benefit plan. The HHS IU factors are based on combined medical/pharmacy AV, but as we develop BRVs separately for medical and pharmacy plans, we will apply the formula to medical-only AVs. We normalized the curve such that the average AV underlying the base BRV experience period returns a utilization adjustment of 1.00. In other words, if a simulated benefit has an AV less than the average AV, then utilization will be reduced (i.e. factor < 1.00). If a simulated benefit has an AV greater than the average AV, then the benefit will have induced utilization (i.e. factor > 1.00).

We performed an independent analysis to measure the correlation between the benefit design and the overall health care spending. The correlation uses the actuarial value as the independent variable and the total allowed charges (capped at \$30,000 per member per year) as the dependent variable. A  $2^{nd}$  order polynomial best fits the data. The polynomial was normalized such that the average actuarial value underlying the base

BRV experience returns a utilization adjustment of 1.00. The resulting formula is  $Medical\ Utilization: 3.2737\ \times (AV)^2 - 3.6701\ \times (AV) + 1.8316$ . The BCBSVT IU factor from this curve is blended with the IU factor from the HHS curve to calculate the IU factor used in the BRV model, with a minimum set at 0.74 and a maximum of 1.20.

### Benefit Relativity Model: Pharmacy

The trends used were the total trend, by type of drug, as described above (section 4.2) for brand, generic, and specialty drugs.

Within the model, all pharmacy scripts, including specialty, were assigned to one of six categories: retail generic, retail preferred brand, retail non-preferred brand, mail generic, mail preferred brand, and mail non-preferred brand. We applied flags to identify several categories of drugs that are either required to be covered in full (ACA contraceptives and vaccines) or for which a group may purchase a rider to offer additional coverage (some fertility drugs) or exclusion (lifestyle drugs). We also flagged drugs for which a group may offer special cost-sharing arrangements, such a diabetic medications and wellness drugs. We assigned these flags by National Drug Codes as reported to us by ESI.

The experience period data was adjusted to reflect the major brands that are expected to become generic during 2019 and 2020. The list was based on a report provided by ESI.

For these brands, in the first six months (the exclusivity period), we reduced the Average Wholesale Price (AWP) by 10 percent and kept the brand discount. For the months after the exclusivity period, we reduced the AWP by 10 percent and changed the discount to the generic discount. The 10 percent reduction in AWP is based upon industry standard assumptions, supported by our own analysis of AWP changes for drugs that have moved from brand to generic over the past several years.

One record was created for each member and date of service combination. One record can have more than one script category. The model tests one benefit design at a time. It determines the member portion of the allowed charges and a total simulated paid PMPM for each benefit design. The impact of the deductible, coinsurance, copays and out-of-pocket maximum (OOPM) is considered. Following the ACA, contraceptives and vaccines are excluded from the cost sharing. If the average allowed cost of a category is less than the copay being examined, it is assumed that the member pays only the full cost of the script. With Vermont Act 171, all pharmacy benefits effective January 1, 2019 or later will have an OOPM of \$1,350. It is possible that this limit will increase effective January 1, 2020, following the IRS rules for Health Savings Account and High Deductible Health Plans. The exhibits include the \$1,350 OOPM on pharmacy benefits.

The relativities for active employees for some pharmacy products currently in our book of business are displayed on Exhibit 3D.

### Benefit Induced Utilization: Pharmacy

We performed an independent analysis to measure the correlation between the benefit design and the quantity of pharmacy prescriptions consumed. The pharmacy benefits are adjusted in two ways. First, the generic utilization varies with the benefit design. Claims and membership data from January 2014 through June 2018 were used to create a table to adjust the base generic utilization up or down depending on the difference in the generic and brand copays of the member's drug plan.

Second, we performed a separate analysis to adjust for the overall pharmacy benefit. A modeled actuarial value was assigned to every benefit in the experience period. The correlation uses the actuarial value as the independent variable and days supply as the dependent variable. A  $2^{nd}$  order polynomial best fits the data. The curve was normalized such that the actuarial value underlying the base BRV benefit returns a utilization adjustment of 1.00. The resulting formula is  $Pharmacy\ Utilization$ :  $0.8389 \times (AV)^2 - 0.1048 \times (AV) + 0.4346$ , with a minimum set at 0.74 and a maximum of 1.24.

Although we use two steps to calculate the induced utilization, we are not adjusting the data twice. The adjustment for difference in generic/brand copays changes the mixture of scripts (i.e. generic dispensing rate) without adjusting the overall frequency of scripts. The richness or leanness of the plan, as measured by the actuarial value, drives an adjustment to the overall frequency of scripts without changing the mixture of scripts.

As the model includes claims from both CDHPs and drug cards, we also adjust for the type of benefit being modeled. Claims incurred on a CDHP have a lower cost per script than claims incurred on a drug card. We calculate a factor for each benefit type by taking the ratio of the cost per script for that type and the cost per script from all claims in the model. For CDHPs, the factor is 0.9301 and for drug cards the factor is 1.0554.

#### Benefit Relativity Model: Integrated (CDHP)

The CDHP model combines both the medical and pharmacy models described above. One record was created for each member, date of service and type of service combination. A separate medical and pharmacy actuarial value is calculated, and the appropriate utilization adjustment is made.

The relativities for active employees for some CDHP products currently in our book of business are displayed on Exhibit 3C.

#### 5.2. Tier Factors

The BRV models calculate the average paid claims of a single member on a particular benefit design. BCBSVT sells products with rate tiers for multiple members. These rate tiers feature family deductibles and out-of-pocket maximums either in addition to or in

place of the individual limits. We refer to products that have family limits in addition to individual limits as stacked, and to products with only family limits as aggregate. For products renewing after January 1, 2016, members on aggregate plans are subject to the federal maximum allowed individual out-of-pocket, even if the aggregate out-of-pocket maximum is higher. We refer to these plans as hybrid.

To price benefits for rate tiers with multiple members, we calculated tier factors to apply to the BRV for the benefit. We used the BRV models to calculate member paid amounts for each member in the model and used every combination of members to create "families" in the following categories:

- One Adult
- Two Adults
- One Adult and One Child, ..., One Adult and Seven Children
- Two Adults and One Child, ..., Two Adults and Seven Children

For each category of family, we calculated the average plan paid amount subject to the family cost sharing. Then we combined the categories of families into rate tiers using the proportion of each category in the experience period membership as a weight. The ratio of plan paid amount for each rate tier to the plan paid amount for the single rate tier is the tier factor. For aggregate and hybrid factors, we grouped products together into three ranges of out-of-pocket maximums and calculated tier factors for each range. We calculated different factors for products with separate medical and drug benefits and for products with integrated benefits (CDHPs). The hybrid factors are applicable to benefits with a \$7,900 individual out-of-pocket maximum. This is the 2019 individual out-of-pocket maximum set by HHS. Upon release of the 2020 individual out-of-pocket maximum, we will calculate factors using identical data, assumptions, and methodology and adjust the groupings of out of pocket maximums if necessary. The tier factors calculated for each range and type of benefit are shown in Exhibit 3H.

Separate factors are provided for stacked plans with family multipliers of two, two-and-a-half, and three for deductibles and out-of-pocket maximums. The aggregate and hybrid factors assume a family multiplier of two. If a group requests a benefit with a non-standard multiplier, out-of-pocket maximum, tier structure, or individual out-of-pocket maximum (for a hybrid plan) that is not in the exhibit, identical data, assumptions and methodology as described above will be used to calculate appropriate tier factors for the requested benefit.

# 5.3. Formulary & Pharmacy Options

BCBSVT offers groups a selection of formularies. Groups can select either the BCBSVT Open Formulary or the National Preferred Formulary. Groups electing the National Preferred Formulary receive greater rebates than those on the BCBSVT Open Formulary. To calculate the impact of the change, rebate-eligible claims for the large groups impacted by this filing were identified. Rebate totals were calculated under the contracted terms of each formulary. For groups changing formularies, the below factors

are applied to projected rebates. The factors will be adjusted proportionately if the experience period includes a mix of formularies.

Experience Formulary	Rating Formulary	Rebate Multiplier
BCBSVT Open	National Preferred	
Formulary	Formulary	1.256
National Preferred	BCBSVT Open	
Formulary	Formulary	0.796

BCBSVT offers groups an Active Choice pharmacy program. This program requires an active choice regarding the way members obtain their maintenance prescription drugs. For groups electing this program, the simulated paid pharmacy claims in the BRV calculation will be decreased by \$0.43 PMPM.

BCBSVT offers groups an Express Scripts Specialty Pharmacy Exclusive option. Groups electing this option receive greater discounts and rebates on specialty drugs. Pharmacy contract factors for this option are calculated using an analogous method to the standard contract factors, as described in Section 4.2. Exhibit 3G Page 2 provides the discount factors for the Express Scripts Specialty Pharmacy Exclusive option. The factors below are applicable to the projected rebates. The factors were developed assuming the entirety of the experience period is on the non-exclusive specialty option and the entirety of the rating period is Express Scripts Specialty Pharmacy Exclusive option. For groups with a mix of specialty options in their experience period, the factors will be adjusted using an analogous methodology proportionately to the programs in effect.

Formulary	Specialty	Rebate Multiplier
BCBSVT Open	Express Scripts Specialty	
Formulary	Pharmacy Exclusive	1.158
National Preferred	Express Scripts Specialty	
Formulary	Pharmacy Exclusive	1.134

#### 5.4. Riders

BCBSVT files riders with the Vermont Department of Financial Regulation (DFR) that allow large groups to add or modify covered services. These riders include, but are not limited to, the Benefit Enhancement Rider, Acupuncture Benefits Rider, and Wellness Drug Rider. For riders that modify covered services, the benefit relativity model is used to price the rider. For riders that cover an optional service, allowed charges are developed from groups who offer that coverage and adjusted to the group's benefit, or a reasonable approximation of allowed charges is used if no experience data exists. If, in the underwriter's professional judgment, the election of a rider will create material

anti-selection, the underwriter will modify the rate as necessary using underwriting judgment, as described in section 3.

### 6. Other Factors Applicable to All Association Health Plans

#### 6.1. Manual Rate

The manual rate for active members is the paid claims PMPM incurred between October 1, 2017 and September 30, 2018 and paid through November 30, 2018 from BCBSVT insured small groups who do not have their entire enrollment on a platinum plan, trended to calendar year 2020 using the trends and pharmacy contracts adjustments described in section 4. This population was chosen as it is anticipated to be analogous to the associated health plan line of business.

Calculation of the Manual Rate (Actives)		
Experience Paid Claims, capped at		
\$800,000 and completed	Α	\$ 143,182,114
Overall Paid Trend factor (7.7% for 27		
months)	B <sub>1</sub>	1.182
Pharmacy Contract Adjustment	B <sub>2</sub>	0.996
Projected Total Paid Claims	$C = A \times B_1 \times B_2$	\$ 168,669,887
Total Member Months	D	314,615
Manual Rate	E = C / D	\$ 536.12

The manual rate is adjusted to reflect a group's particular characteristics, as demonstrated in Exhibit 4A. An adjustment is made for the average age/gender factor (line B) of the group. We used factors from the SOA's report *Health Care Costs - From Birth to Death*<sup>6</sup>. The factors were normalized such that the membership in the manual rate experience period has an age/gender factor of one. Finally, a contract conversion factor (line D) is calculated based on member distribution and tier factors in order to convert from a PMPM to a single rate basis (necessary because the adjusted manual rate (line S of Exhibit 1A) is blended with the projected single contract rate (line R of Exhibit 1A), which is not on a PMPM basis).

### 6.2. Large Claims Factors

BCBSVT will use the formula and factors in Milliman's 2017 *Health Cost Guidelines* - *Reinsurance* to calculate expected claims above the pooling limit. The contents of the *Guidelines* are proprietary and confidential. This filing will provide a general description of the formula but will not include any of the factors.

<sup>&</sup>lt;sup>6</sup> https://www.soa.org/research-reports/2013/research-health-care-birth-death/

The factors for the age curve are in Chart 1 of the databook linked on the page.

Claim costs above a particular pooling point are developed separately for children and adults on a PMPM basis. The basis for each rate is a starting claim cost that varies with the pooling point and the out-of-pocket limit for the benefit. The starting claim costs are based on national data and factors are applied to adjust to our Vermont service area and the details of our contracts with local providers. An adjustment for demographics is applied, as is a trend factor to adjust the starting claim costs for the experience period of the renewal. The starting claim costs are also adjusted for the network of the benefit to account for claims from out-of-network providers, if appropriate for the benefit.

The adjusted adult and child claims rates by benefit are multiplied by the number of adult and child member months in the experience for that benefit to develop the total expected claims above the pooling level.

### 6.3. Administrative Charges

The sources of actual expense data in this filing are BCBSVT's data warehouse and accounting records. As this is a new line of business, BCBSVT and TVHP large group experience is used to approximate estimated administrative expenses. The experience period for this filing is November 2017 to October 2018. Actual BCBSVT and TVHP administrative expenses for the experience period were compiled on a GAAP reporting basis. During 2015, BCBSVT completed a comprehensive cost accounting study. The results were refreshed during 2017 to reflect known operational changes. Allocations to specific lines of business on a GAAP reporting basis were updated for the results of this study, beginning in December 2015. Exhibit 5A provides a reconciliation of the experience period to restated GAAP financial report data.

### Experience Base of Actual Expenses

Administrative expenses are allocated under BCBSVT's cost accounting system to lines of business. Overhead expenses are allocated to lines of business on the basis of relative capital requirements, which were measured as each line's relative impact on Risk-Based Capital (RBC). We used BCBSVT insured large group and TVHP insured large group information for the base administrative charges.

The cost accounting data by cost center is allocated into cost categories for purposes of determining administrative charges for each specific group account, given that account's characteristics. The group cost categories align with the rules used in the cost allocation model. The group cost categories include:

**Account** – those expenses that are allocated to specific group accounts on a per group account basis.

**Member** - those expenses that are allocated on a per member basis.

**Contract** - those expenses that are allocated on a per contract (subscriber) basis. **Medical Claims** - those expenses that are allocated on a per medical claim basis.

**Total Projected Claims** - those expenses that are allocated via a percent of claims factor.

For each of the group cost categories described above, the respective number of unit months during the experience period was tabulated for BCBSVT and TVHP insured large groups. These segments are combined in this filing for marketing considerations. The unit months include the number of account months, number of member months, number of contract months, and number of medical claims by months. For the expenses allocated on a capital requirement basis, the experience administrative charges were divided by total projected paid claims to calculate a percent of claims factor.

Reclassifications reflected in Exhibit 5A include the removal of federal fees (these are added to premium rates separately; see section 6.8), GMCB billback (these are added to premium rates separately; see section 6.7) and fees paid to our vendor Health Equity for the administration of Health Savings Accounts and Health Reimbursement Accounts linked to our insurance products (participation in this service is optional and we assign these fees to groups who select the service). We also removed any expenses incurred due to one-time, non-recurring events, as these fees are not expected to continue to occur in the projection period. These include transitional costs associated with the conversion to a new technology platform. Decreasing membership has reduced total variable costs, but BCBSVT has delayed reducing its administrative budget in order to support transition activities. This transition will be complete by the end of 2019, so we have reflected a transitional savings of \$0.91 PMPM in 2020 for the large group line of business.

Using the adjusted experience period administrative expenses and unit months, per unit per month (PUPM) values were calculated. For the group segments included in this filing, there are four such PUPM values and one percent of claims value – one for each of the cost categories indicated above.

The experience period administrative expenses PUPM are shown in Exhibit 5B, line C.

#### **Projection Factors**

Actual administrative costs PUPM from the experience period were projected to each of the rating periods. Projection factors are based on a 2.5 percent annual trend. These projection factors are intended to make reasonable but modest provision for increases in overall operating costs PUPM. Note that there are no known extraordinary or mandate-related costs at this time which require separate provision for the rating periods involved in this filing.

We are assuming that personnel costs (wages and benefits) will increase by three percent, the budgeted wage increase for 2019, over the projection period. Other operating costs are assumed to remain flat. Based on year-to-date October 2018 information, we have calculated that 83.5 percent of our administrative costs are for

salaries and benefits. We are therefore increasing our total projected administrative expenses by the weighted average of 2.5 percent per annum.

Development of Administrative Charges Trend			
		YTD Oct 2018	Percent of Total
Employee costs	Α	\$37,186,172	56.4%
Purchased service	В	\$21,376,708	32.4%
Other operating costs	С	\$7,353,106	11.2%
Subtotal administrative	D =		
expenses	A+B+C	\$65,915,986	100.0%
Total Personnel Cost	E = A / (A + C)		83.5%
Trend for Personnel Cost	F		3.0%
	$G = \{(1+F) \times E + (1.00) \times (1-E)\}$		
Total Trend	1		2.5%

For 2019, we project total BCBSVT membership will decrease, resulting in an increase in admin charges PMPM. We calculated PMPM admin charges with experience period enrollment and projected 2019 enrollment and found they increased by 2.0 percent with the projected 2019 enrollment. We assumed that variable costs represent half of the increase, and therefore applied an increase of 1.0 percent to the base PUPM charges to account for the reduction in membership.

### **Charges for Group Accounts**

The administrative charge PUPM figures shown in Exhibit 5B are the values to be applied on an account by account basis, along with each group account's corresponding unit count, to produce account-specific administrative charges. These amounts will then be expressed as equivalent PMPM amounts for each group account.

Amounts for special items or unique services not part of BCBSVT standard scope of administrative services (e.g., special booklets, certificates, or reports) are to be determined and applied separately on an account-specific basis. Commissions based on the commission scale applicable to the account are not reflected in the schedule of admin charges in Exhibit 5B and will be calculated and applied separately.

#### 6.4. Net Cost of Reinsurance

BCBSVT has purchased reinsurance for claims in excess of \$800,000 for 2019, and expects to purchase similar reinsurance in future years with limits approximately equal to the 2019 limit increased by trend. We estimate that the target loss ratio for the reinsurance is approximately 75 percent, which implies a cost of reinsurance of approximately 33 percent of claims above the reinsurance limit. For each pricing period starting quarter, we determined an annual cost of reinsurance for the trended reinsurance limit by multiplying the expected annual claims cost above the limit by 33 percent. Dividing this by 12 produces the PMPM cost of reinsurance.

Pricing Period Starting Quarter
Q1 2020
\$1.71

### 6.5. Pharmacy Rebates

Pharmacy rebates are calculated by taking the experience period rebates and trending them using the brand cost trend (from Exhibit 2F). Pharmacy rebates are paid with an average seven-month delay from the time of the original claims. For months in the experience for which we do not have detailed rebate information, an estimated rebate amount is included in the calculation.

#### 6.6. Contribution to Reserve

As directed by management, we included the following contribution to reserve factors in the rate calculation:

Contribution to Reserve		
BCBSVT Insured AHPs	1.5% of premium	

#### 6.7. State Mandates and Assessments

#### **Vermont Vaccine Purchasing Program Payments**

The Vermont Vaccine Purchasing Program<sup>7</sup> offers health care providers state-supplied vaccines at no charge by collecting payments from Health plans, insurers, and other payers. The program's assessment is a PMPM for each Vermont resident. We estimate that the 2020 rates will be 60 percent of the original 2018 rates of \$8.15 per child and \$0.72 per adult. We will update these rates once the actual 2020 rates are known.

### **New Hampshire Purchasing Program Payments**

The New Hampshire Purchasing Program<sup>8</sup> offers health care providers state-supplied vaccines at no charge by collecting payments from health plans, insurers, and other payers. The assessment for 2019 is \$6.47 for each child that is a New Hampshire resident. The current best estimate of the 2020 rate is \$7.20 per assessable life per month. We will use these rates until a new rate is approved.

<sup>&</sup>lt;sup>7</sup> http://www.vtvaccine.org/

<sup>8</sup> https://nhvaccine.org/

#### New York State Health Care Reform Act

BCBSVT pays the New York GME Covered Lives Assessment<sup>9</sup> for all members who are New York residents as part of the New York State Health Care Reform Act. The assessment varies based on the county of residence. We will use the approved 2019 rates until new rates are approved.

### Maine Guaranteed Access Reinsurance Association

BCBSVT will pay the Maine Guaranteed Access Reinsurance Association Assessment<sup>10</sup>. The 2019 assessment is \$4.00 per member per month for each member that is a Maine resident. We will use the 2019 rates until new rates are approved.

#### Health Care Claims Tax

The Health Care Claims Tax of 0.999 percent applies to all claims or capitations incurred by members with Vermont zip codes. We use the percentage of current members with Vermont zip codes to estimate the percentage of rating period claims expected to be incurred by Vermont members. Act 73 of 2013 sunset the 0.199 percent assessment for the Health IT-Fund. Given this fee has twice been extended close to its sunset date, we will include it in the calculation and update the charge if new information becomes available.

### **Blueprint**

BCBSVT participates in the Vermont Blueprint for Health program. The current assessments for this program, applied to members who are attributed to a Blueprint provider as of the month the renewal is produced, are \$2.77 PMPM for the Community Health Team and \$3.00 PMPM for the Patient Centered Medical Homes (PCMH). PCMH are eligible for up to \$0.50 for performance. We project that our total PMPM for PCMH will be \$3.24. The projected performance payment is based on the average payment for large groups from October 2017 to November 2018. Any updates made to the Blueprint Manual<sup>11</sup> will be incorporated in renewals.

#### Green Mountain Care Board Billback

BCBSVT is assessed a billback from the Green Mountain Care Board. As this is a new line of business, BCBSVT and TVHP large group experience is used to approximate the estimated billback. Billback amounts from the administrative charges experience period described in section 6.3 were applied to projected member months to develop the charge of \$2.30 PMPM. The portion of the assessment for nonprofit hospital and medical service corporations is increasing from 24 percent to 29.6 percent<sup>12</sup>. Accordingly, we apply a factor to reflect the increase in allocation.

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<sup>9</sup> https://www.health.ny.gov/regulations/hcra/gmecl.htm

<sup>10</sup> http://www.mgara.org/

<sup>11</sup> http://blueprintforhealth.vermont.gov/

GMCB Billback Calculation		
BCBSVT Projected Large Group Billback	\$210,917	
TVHP Projected Large Group Billback	\$122,154	
Total Large Group Billback	\$333,071	
Projected Member Months	178,387	
Billback Charge Before Allocation Change	\$1.87	
Allocation Increase	0.296/0.24 = 1.23	
Billback Charge PMPM	\$2.30	

#### Other Assessments

Other state mandates and assessments will be included in the calculation as applicable.

#### 6.8. Federal Assessments

#### Federal Insurer Fee

The Federal Insurer Fee is intended to help pay for some provisions in the Affordable Care Act. This fee is only applicable to Fully Insured & Refund Eligible Groups. H.R.195 temporarily suspended this fee for 2019 only. For 2020 and 2021, we project the free to be 2.2% of premium. The fee will be weighted proportionally to the applicable fee by months in the rating period.

The IRS Annual Fee on Health Insurance Providers for 2018 Invoice, dated August 29, 2018, calculated the BCBSVT portion of the total assessment as:

 $\frac{\text{Net premiums taken into account for BCBSVT}}{\text{Net premiums taken into account for all covered entities}} \, = \,$ 

$$\frac{\$554,571,682.00}{\$712,963,700,661.11} = 0.078\%$$

The numerator of the calculation reflects premiums collected in 2017. BCBSVT experienced losses in membership in 2018, which will reduce the amount of premium collected by BCBSVT proportionate to the net premium for all covered entities. Accordingly, we apply an adjustment to the BCBSVT portion of the total assessment by applying the following factor:

 $\frac{2019 \text{ projected net premiums taken into account for BCBSVT}}{2018 \text{ invoice net premiums taken into account for BCBSVT}} =$ 

$$\frac{\$481,458,818}{\$554,571,682} = 0.868$$

The calculation of the fee is provided below, which uses the estimated 2019 industry assessment prior to the suspension of the fee. This calculation will be updated if additional information is received. BCBSVT will continue to update the rating formula in the event of a suspension of this fee.

Federal Insurer Fee Calculation			
		2018 Actual	2019 Projected
Projected Fully Insured			
Premium subject to the			
Federal Insurer Fee	a	\$554,571,682	\$481,458,818
Total Industry Assessment			
for Federal Insurer Fee	b	\$14,300,000,000	\$15,600,000,000
BCBSVT and TVHP Portion			
of Total Assessment			
(based on 2018			
information)	С	0.078%	0.068%
Premium Adjustment	d	1.000	0.868
Projected BCBSVT and	e = b x		
TVHP Federal Insurer Fee	c x d	\$11,123,112	\$10,534,558
Estimated Required			
Charge as a percent of	f = e /		
Total Premium	a	2.0%	2.2%

#### Other Assessments

Other federal mandates and assessments will be included in the calculation as applicable.

### 7. Medical Loss Ratio Projection

We use the factors and formula in this filing to project a Medical Loss Ratio (MLR) for 2020. Using the manual rate as a proxy for projected claims, we project a 2020 MLR of 89.3 percent.

	BCBSVT MLR				
(A)	Manual Rate	\$536.12	Exhibit 4A		
(B)	Rebates	\$11.52	2017 MLR Filing, untrended		
(C)	Estimated HCQ	\$2.88	2017 MLR Filing, untrended		
(D)	State Mandates and	\$9. 78	Calculation as described on Exhibit 1B, using		
	Assessments	^	latest actual PMPM as needed		
(E)	MLR Numerator	\$537.26	= (A) - (B) + (C) + (D)		
(F)	Projected Claims	\$534.38	= (A) - (B) + (D)		
(G)	Net Cost of Reinsurance	\$1.71	Actuarial Memorandum, Section 6.4		
(H)	Administrative Charge	\$48.51	Calculation as of January 2020, from Exhibit 5B		
<b>(l)</b>	GMCB Billback	\$2.30	Calculation using 2019 Charges		
(J)	Subtotal	\$586.90	= (F) + (G) + (H) + (I)		
(K)	Total Premium	\$615.06	= (J) / (1-0.022-0.009-0.015)		
(L)	Federal Insurer Fee	\$13.53	= (K) x 2.2% (from Actuarial Memorandum, Section 6.8)		
(M)	Commissions	\$5.40	= (K) x 0.9% (from 2017 MLR filing)		
(N)	Contribution to	\$9.23	= (K) x 1.5% (from Actuarial Memorandum,		
(11)	Reserve	-	Section 6.6)		
<b>(0)</b>	MLR Denominator	\$601.53	= (K)- (L)		
(P)	MLR	89.3%	= (E) / (O)		

The above calculations represent estimates assuming that all pricing assumptions hold true, and assuming no change from 2017 values for various quantities (e.g. rebates, commissions).

### 8. Act 193 Information

This is the first filing for Association Health Plans. As the plans did not exist in 2018, there is no basis for determining an increase in prescription drug spending.

The table below shows the percentage of the 2020 manual rate for generic, brand, and specialty drugs. The percentages were calculated as the experience drug claims (October 2017 - September 2018, paid through November 2018), trended to 2020 and adjusted to the pharmacy contract in force for 2020, divided by the 2020 manual rate of \$536.12.

Drugs Processed Under the Pharmacy		
Туре	Percent of 2020 Manual Rate	
Generic	2.3%	
Brand	5.9%	
Specialty	12.1%	

Please see Addendum A for the specialty formulary as of 1/1/2019.

Drugs administered in an outpatient setting and covered by the medical benefit represent 6.9 percent of the 2020 manual rate. Outpatient drug claims from the experience period were trended to 2020 and divided by the 2020 manual rate of \$536.12.

The pharmacy benefits for AHPs will be administered by Express Scripts (ESI). ESI will manage claims processed through the pharmacy benefit but not claims processed through the medical benefit for use in a facility.

# 9. Actuarial Opinion

The purpose of this filing is to establish the formula, manual rate, and accompanying factors that will be used for renewals of Blue Cross and Blue Shield of Vermont association health plans. This filing is not intended to be used for other purposes.

The data used in this analysis has been reviewed for reasonableness and consistency; however, it has not been audited.

It is my opinion that the rating formula and factors presented in this filing are reasonable, and have been prepared in accordance with applicable Actuarial Standards of Practice. The formula and factors will produce premium rates that are reasonable in relation to the benefits provided, and will not be excessive, deficient or unfairly discriminatory.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's Qualification Standards to render this opinion.

Paul A Schultz, F.S.A., M.A.A.A.

and a A

February 20, 2019

**I HEREBY CERTIFY** that I have reviewed the applicable filing requirements for this filing, and, to the best of my knowledge, the filing complies with all applicable statutory and regulatory provisions for the State of Vermont.

Ruth Greene

Vice President, Treasurer & CFO

02/21/2019 Date



February 20, 2019

Thomas Crompton
Health Systems Finance Associate Director
Green Mountain Care Board
144 State Street
Montpelier, Vermont 05602

Subject: Blue Cross and Blue Shield of Vermont - NAIC # 53295

2020 Association Health Plan Rating Program Filing

Dear Mr. Crompton:

Attached for the Green Mountain Care Board's review and approval is Blue Cross and Blue Shield of Vermont's 2020 Association Health Plan Rating Program Filing.

We recognize there is active discussion in the legislature regarding the association health plan market. This filing reflects the current regulatory status of the market, establishing the formula and factors that will be used in conjunction with experience to develop rates. In the event that new legislation leads to an environmental change to this market, we will amend the filing as necessary to reflect such changes.

Please let me know if we can answer any questions or provide further information during your review.

Sincerely,

Ruth Greene

cc: Paul Schultz/BCBSVT
Martine Lemieux/BCBSVT



# Vermont Department of Financial Regulation

Health Filing Form F-106

NAIC#: 53295 Transmittal Date: 02/21/1	9	
	<del></del> :	
Company Name: Blue Cross and Blue Shield Address: PO Box 186	3 Vernont	
City, State, Zip: Montpelier, VT 05601-0186		
Phone: ( )(802) 371-3450	Contact Person: Alison Partridge	
20 BCBSVT AHP Filing		9
Amends a previously filing, Depa	rtmental File No.:	Approval Date:
Type of Filing:Form(s) X_Rate(s)		
Completely and accurately identify this then add comments below (check all the		categories does not describe the product filing,
Accident Only		1
AD&D	Disability	Miscellaneous
Advertising	Home Health Only	Nursing Home Only Organ Transplant
	— Hospital Indemnity	Prescription Drug
Blanket	Limited Benefit	Student/Athlete
Cancer Expense	Long Term Care Qualified	Stop Loss/Excess Risk
Conversion	Non-Qualified	Travel
Critical Illness	Major Medical	Vision
Dental	Medicare Supplement	X Other (explain)
Comments: Health		
		iā .
MANDATORY - Filing Fee Informatio	n:	
State of Domicile: Vermont		
2. A: Filing fee for the Company's	State of Domicile: 150.00	
B: Amount of filing fee being su		_
<ul><li>3. Is this fee based on state of domicile</li><li>4. Explain how each part of the fee wa</li></ul>		
5. Fee calculated by: (Print Name)	e Daye (S	ignature) Judi Bujl

Failure to accurately and fully complete this form will result in the filing being rejected.

# Blue Cross and Blue Shield of Vermont 2020 Association Health Plan Rating Program Filing Plain Language Summary

Blue Cross and Blue Shield of Vermont (BCBSVT) is committed to the health of Vermonters, outstanding member experiences and responsible cost management for all of the people whose lives we touch. By pooling the populations covered by our products, we protect individuals from the unaffordable and potentially ruinous costs associated with significant illnesses or injuries. Our products promote preventive care, health maintenance, and health improvement, and we have in place strong utilization management programs that support members who require medical care and assure that they have access to high value care while avoiding unnecessary costs.

BCBSVT also works with providers to dampen cost increases through reimbursement strategies that include incentives to both provide and properly manage care. Our vision is a transformed health care system in which every Vermonter has health care coverage, and receives timely, effective, affordable care. None of this work is possible unless BCBSVT remains financially healthy, and that requires premium rates that cover the medical expenses of the populations served.

BCBSVT performs association health plan premium rating on a case-by-case basis. Rating is accomplished through a formulaic approach that blends recent group claims experience with a manual rate according to a credibility formula. This filing establishes the rating formula, manual rate and accompanying factors that will be used for association health plan renewals beginning upon approval of this filing.

The filing describes in detail the formula used in the renewals, along with each of the factors included in that formula. These include large claims pooling factors, medical and pharmacy trends, and benefit relativities, along with the development of the manual rate. In addition, the filing details the calculation of administrative charges, the net cost of reinsurance, contribution to reserve, and state and federal assessments, all of which are included in the rate development.

BCBSVT is proposing paid trends of 7.2 percent for medical claims and 8.6 percent for pharmacy claims, for a total combined trend of 7.5 percent. Our proposed manual rate, the projected average calendar year 2020 paid claims per member per month, is \$536.12.

A contribution to reserves is required in order to maintain an adequate level of surplus. Surplus is a critical consumer protection that allows subscribers to receive needed care and providers to continue to receive payments for their services in the event of unforeseen adverse events that may otherwise impact BCBSVT's ability to pay claims. The contribution to reserves established in this filing will allow us to maintain a level of reserves that is in compliance with that ordered by the Vermont Department of Financial Regulation.

# **Specialty Drug List**

Unless otherwise noted, all brand and generic formulations of a product are considered specialty.

Green = Drugs distributed exclusively by Accredo.

Red = Drugs distributed by Accredo as part of a limited distribution network.

Blue = Drugs that are designated specialty but not dispensed by Accredo.

\* = Your plan may require most specialty medications to be dispensed exclusively by Accredo. Those medications marked by an asterisk (\*) may have allowances for one or more retail fills



#### **ALPHA 1 DEFICIENCY**

Aralast NP® Prolastin C® 7emaira®

#### **ANTICOAGULANT**

Arixtra®\* (fondaparinux sodium) Fragmin® 7 Iprivask® Lovenox®\*(enoxaparin sodium)

#### **ASTHMA & ALLERGY**

Cinqair<sup>®</sup> Dupixent® Fasenra™ Nucala® Oralair<sup>o</sup> Xolair<sup>®</sup>

#### **BLOOD CELL DEFICIENCY**

Aranesp<sup>®</sup> Doptelet® Epogen® Fulphila™ Granix™ Leukine® Mircera<sup>®</sup> Mozobil® Mulpleta® Neulasta® Neumega® Neupogen® Nplate Procrit® Promacta® Tavalisse<sup>™</sup> Zarxio™

#### **CANCER**

Abraxane<sup>®</sup> Adcetris<sup>™</sup> Afinitor® Alecensa® Aliqopa™ Alunbrig<sup>™</sup> Arranon Arzerra® Avastin® Azedra® Bavencio Beleodaq™ Bendeka™ Besponsa<sup>TM</sup> Blincyto<sup>TM</sup> Bosulif® Braftovi™ Cabometyx™ Calquence Caprelsa<sup>®</sup> Cometriq™ Cotellic® Cyramza™ Dacogen® (decitabine)

Darzalex®

Empliciti™

Eligard®

CANCER (cont'd) Erbitux® Erivedge™ Erleada™ Frwinaze® Evomela<sup>TM</sup> Farydak® Firmagon® Folotyn® Gazyva<sup>™</sup> Gilotrif™ Gleevec® (imatinib) Halaven<sup>TM</sup> Herceptin® Hycamtin® (capsules) Hycamtin® (topotecan injection) Ibrance® Iclusig® Idhifa® Imbruvica™ Imfinzi™ Imlygic™ Inlyta® Intron A® Iressa® Istodax® Ixempra® Jakafi™ Jevtana® Kadcyla™ Kepivance® Keytruda<sup>®</sup>

Kisqali® Kisqali Femara® Kymriah<sup>T</sup> Kyprolis Lartruvo™ Lenvima™ Lonsurf<sup>®</sup> Lutathera® Lupron Depot® Lynparza™ Marqibo<sup>®</sup> Matulane Mekinist™ Mektovi®

Mylotarg™ Nerlynx™ Nexavar® Ninlaro® Odomzo® Onivyde<sup>TM</sup> Opdivo® Pegasys® Peg-Intron® Perjeta™ Pomalyst® Portrazza™ Poteligeo® Proleukin® Provenge® Purixan™

Revlimid® Rituxan® Rituxan Hycela® Rubraca Rydapt® Sprycel® Stivarga® Sutent® Sylatron<sup>TM</sup>

Sylvant™

#### CANCER (cont'd)

Tafinlar® Tagrisso<sup>™</sup> Tarceva<sup>®</sup> Targretin® Tasigna® Tecentriq™ Temodar® (temozolomide)
Thalomid® Tibsovo Torisel® Treanda® Tykerb® Unituxin™ Valchlor™ Valstar® Vantas<sup>©</sup> Vectibix® Velcade<sup>®</sup> Venclexta<sup>™</sup> Verzenio TM

Vidaza® (azacitidine) Vistogard

Votrient® Vyxeos<sup>TM</sup> Xalkori®

Xeloda® (capecitabine) Xgeva™ Xofigo® Xtandi® Yervoy™ Yescarta™ Yondelis<sup>®</sup> Yonsa® Zaltrap® Zejula<sup>™</sup> Zelboraf™ Zoladex® Zolinza<sup>®</sup> Zometa® Zydelig<sup>®</sup> Zykadia<sup>™</sup> Zytiga<sup>™</sup>

#### CONTRACEPTIVES

Kyleena<sup>™</sup> Liletta<sup>™</sup> Nexplanon® Paragard<sup>®</sup> Skyla<sup>®</sup>

## CYSTIC FIBROSIS

Bethkis<sup>®</sup> Cayston® Kalydeco™ Kitabis Pak™ Orkambi<sup>TM</sup> Pulmozyme®\* Symdeko™ Tobi® (tobramycin) Tobi Podhaler

#### **ENDOCRINE DISORDERS**

Crysvita® Egrifta® Korlym

#### **ENDOCRINE DISORDERS** (cont'd)

Kuvan® Lupaneta Pack™ Lupron Depot-Ped® Myalept™ Natpara® Palynziq™ Samsca' Sandostatin® (octreotide acetate) Sandostatin LAR® Signifor® LAR Signifor® Somatuline Depot® Somavert® Supprelin LA® Testopel<sup>®</sup> Triptodur™ Xermelo<sup>1</sup>

#### **ENZYME DEFICIENCIES**

Adagen® Aldurazyme® Brineura Carbaglu® Cerdelga™ Cerezyme® Cystadane® Elaprase® Elelyso™ Fabrazyme® Galafold™ Kanuma™ \_ Lumizyme™ Mepsevii™ Naglazyme® Nityr™ Orfadin® Ravicti™ Strensig<sup>™</sup> Sucraid<sup>®</sup> Vimizim™ **VPRIV**TN Zavesca® (miglustat)

# **GROWTH DEFICIENCY**

Genotropin® Humatrope® Increlex Norditropin® Nutropin AQ® Omnitrone<sup>®</sup> Saizen® Serostim® Zomacton<sup>®</sup> Zorbtive<sup>®</sup>

#### **HEMOPHILIA**

Advate<sup>®</sup> Adynovate<sup>™</sup> Afstyla® Alphanate® Alphanine SD® . Bebulin® Benefix® Coagadex® Corifact®

#### HEMOPHILIA (cont'd)

DDAVP® (desmopressin acetate) (oral/nasal forms are not specialty) Floctate<sup>1</sup> Feiba® Fibryga® Helixate FS® Hemlibra® Hemofil M® Humate-P® Idelvion® I xinity® Jivi® Koate® Kogenate FS® Kovaltry® Monoclate-P® Mononine Novoeight®

Novoseven RT® Nuwiq<sup>®</sup> Obizur<sup>TM</sup> Profilnine SD® Rebinyn® Recombinate™ RiaSTAP Rixubis™ Stimate® Tretten® Vonvendi™ Wilate® Xyntha®

#### **HEPATITIS C**

Daklinza™ Epclusa® Harvoni<sup>®</sup> Mavyret™ Ribavirin (Rebetol® Ribasphere®, Moderiba<sup>TM</sup>) Ribapak®, Sovaldi Viekira Pak® Zepatier®

#### **HEREDITARY ANGIOEDEMA**

Berinert Cinryze® Firazyr® Haegarda® Kalbitor® Ruconest® Takhzyro™

#### **HIGH BLOOD** CHOLESTEROL

**Juxtapid**<sup>©</sup> Praluent™ Repatha™

HIV Trogarzo™ Unless otherwise noted, all brand and generic formulations of a product are considered specialty.

Green = Drugs distributed exclusively by Accredo.

Red = Drugs distributed by Accredo as part of a limited distribution network.

Blue = Drugs that are designated specialty but not dispensed by Accredo.

\* = Your plan may require most specialty medications to be dispensed exclusively by Accredo. Those medications marked by an asterisk (\*) may have allowances for one or more retail fills.

#### **IDIOPATHIC PULMONARY FIBROSIS**

Esbriet<sup>™</sup> OFEV®

# IMMUNE DEFICIENCY

Bivigam™ Cuvitru™ Cytogam® Flebogamma® Gamastan S-D® Gammagard Liquid® Gammagard S-D® Gammaked™ Gammaplex® Gamunex-C®  $Hizentra^{TM}$ HyQvia™ Octagam® Privigen®

#### INFERTILITY1

(oral forms are not specialty) Bravelle® Cetrotide®

Chorionic Gonadatropin (brands

include Novarel®, Pregnyl®) Crinone®

Endometrin® Follistim AQ®

Ganirelix (ganirelix acetate) Gonal-F®

leuprolide Menopur<sup>®</sup> Ovidrel®

progesterone injection

#### **INFLAMMATORY** CONDITIONS

Actemra<sup>©</sup> Arcalyst® Benlysta<sup>®</sup> Cimzia® Cosentyx™ Enbrel® Entyvio™ Humira® Humira® (Pediatric)

Ilaris® Inflectra™ Kevzara® Kineret® Olumiant® Orencia® Otezla® Remicade® Renflexis™ Siliq™ Simponi™ Simponi Aria® Stelara™ Taltz<sup>®</sup> Tremfya™ Xeljanz® Xeljanz XR®

# **IRON TOXICITY**

Exjade® Ferriprox<sup>©</sup> Jadenu™

# **MISCELLANEOUS**

**DISEASES** Acthar H.P. Gel® Actimmune<sup>®</sup> Apokyn® Arestin® Austedo<sup>®</sup> Botox<sup>®</sup> Botox Cosmetic®
Ceprotin<sup>TM</sup> Chenodal® Cholbam® Cystagon® Daraprim® Duopa™

Dysport® Endari™ Gattex® Gocovri™ Hemangeol™ Hetlioz™

Ingrezza™ Jynarque™ Kevevis® Krystexxa®

Makena™ (hydroxyprogesterone caproate)

Myobloc® Northera™ Nuplazid™ Ocaliva™ Onpattro™ Prialt® Procysbi™

**Prothelial**™ Qutenza®

Sabril<sup>®</sup> (vigabatrin) Sinuva<sup>™</sup> Solesta®

Soliris® Sprix® Sublocade<sup>™</sup> Thiola® Thyrogen® Varithena<sup>©</sup> Vigadrone™ Vivitrol®

Xenazine® (tetrabenazine)

Xeomin® Xiaflex™ Xuriden™ Xyrem<sup>®2</sup> Zecuity<sup>®</sup>

#### **MULTIPLE SCLEROSIS**

Ampyra<sup>®</sup>
Aubagio<sup>®</sup> Avonex<sup>®</sup> Betaseron® Copaxone® (glatiramer, Glatopa®) Extavia<sup>©</sup> Gilenya® Lemtrada® mitoxantrone® Ocrevus Plegridy® Rebif® Tecfidera® Tysabri<sup>®</sup>

#### **MUSCULAR DYSTROPHIES**

**Fmflaza** Exondys 51<sup>TM</sup> Radicava<sup>™</sup> Spinraza<sup>™</sup>

#### **OPHTHALMIC** CONDITIONS

Cystaran<sup>1</sup> Evlea® Iluvien™ Jetrea Lucentis®  $\textbf{Luxturna}^{\text{TM}}$ 

#### **OPHTHALMIC** CONDITIONS (cont'd)

Macugen® Ozurdex™ Retisert® Visudyne®

#### **OSTEOARTHRITIS** Durolane<sup>©</sup>

Euflexxa® Gel-One® Gelsyn-3<sup>™</sup> Genvisc 850® Hyalgan® Hymovis® Monovisc® Orthovisc® Supartz® Synvisc<sup>®</sup> Visco-3™ Zilretta™

#### **OSTEOPOROSIS**

Boniva® (ibandronate) (oral forms are not specialty) Forteo® Prolia™ Reclast® Tymlos™

#### **PULMONARY HYPERTENSION** Adcirca® (tadalafil)

Adempas® Flolan® (epoprostenol) Flolan Diluent® (epoprostenol diluent) Letairis® Opsumit® . Orenitram™ Remodulin® Remodulin Diluent® Revatio<sup>®</sup> (sildenafil citrate)

Tracleer<sup>®</sup> Tyvaso® Uptravi® Veletri® Ventavis®

#### RESPIRATORY SYNCYTIAL VIRUS

Synagis<sup>®</sup>

### 866.591.9075 | accredo.com

- 1. Some products may be dispensed from Accredo and/or Freedom Fertility Pharmacy
- 2. Xyrem® is distributed through Express Scripts Specialty Distribution Services, Inc.

Disclaimer: Note that additional generic versions of listed medications may be available. Please consult your pharmacist to determine if a generic version of any particular specialty medication is

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Reconciliation of Experience Base Administrative Expense to Restated GAAP Expenses

Exhibit 5

5A 5B

**Adminstrative Charges** 

Administrative Charges PUPM

# **Example Calculation of Projected Single Claims Rate**

# Benefit-Adjusted Projected Single Claims Rate:

Experience Period Paid Claims	\$1,942,000	Α
Experience Period Claims Amount above \$70,000 Pooling Limit	\$242,000	В
Capped Claims	\$1,700,000	C = A - B
Completion Factor	1.005	D
Completed Capped Claims	\$1,710,000	$E = C \times D$
Expected Claims above \$70,000 Pooling Limit	\$228,000	F
Experience Adjustment Factor	1.000	G
Adjusted Experience Period Claims	\$1,938,000	$H = (E + F) \times G$
Experience Period Member Months	4,000	1
Adjusted Experience Period Claims PMPM	\$484.50	J = H ÷ l
Average Experience Period Seasonally Adjusted Benefit Relativity Factor	0.775	K
Demographic Normalization	1.000	L
Benefit-Adjusted Experience Period Single Claims Rate	\$624.76	$M = J \div K * L$
Trend	1.084	N
Trend Months	18	0
Trend Factor	1.129	$P = N ^ (O/12)$
Pharmacy Contract Adjustment	0.990	Q
Projected Single Contract Rate	\$698.06	$R = M \times P \times Q$
Adjusted Manual Rate	\$633.49	S
Credibility factor	53%	Т
Benefit-Adjusted Projected Single Claims Rate	\$668.00	$U = (R \times T) + \{ S \times (1 - T) \}$

# Credibility Calculation

Active Member Months	4,000	a
Member Months for Full Credibility at \$70,000 Pooling Limit	14,002	b

Credibility 53%  $c = (a / b) ^ 0.5$ 

# Example Calculation of Required Premium by Product and Tier Illustrative Only

From Exhibit 1A: Active Benefit-Adjusted Projected Single Claims Rate (S)

\$668.00

Plan A		Single	2-Person	Family
Members per contract		1.000	2.000	3.940
BRV:	Α	0.929	1.859	2.622
Projected Claims:	B1 = A x S	\$620.77	\$1,241.55	\$1,751.68
Net Cost of Reinsurance:	B2	\$1.71	\$3.42	\$6.74
Projected Rx Rebate:	В3	-\$14.00	-\$28.00	-\$55.16
State Mandates and Assessments				
Vaccines for Vemonters	C1	\$2.50	\$5.00	\$9.85
Blueprint for Health	C2	\$6.01	\$12.02	\$23.68
Health Care Claims Tax	C3 = 0.999% * B1	\$6.20	\$12.40	\$17.50
GMCB Billback	C4	\$1.87	\$3.74	\$7.37
Administrative Charge	D	\$50.00	\$100.00	\$197.00
Commission (% premium)	E 3.00%			
Contribution to Reserve	F 1.50%			
Federal Insurer Fee	G 2.20%			
Required Premium:	$H = [ \Sigma(B_i) + \Sigma(C_i) + D ] / (1 - E - F - G)$	\$723.54	\$1,447.08	\$2,099.30
Plan B		Single	2-Person	Family
Members per contract		1.000	2.000	3.938
BRV:	A	1.023	2.046	2.887
Projected Claims:	B1 = A x S	\$683.37	\$1,366.73	\$1,928.30
Net Cost of Reinsurance:	B2	\$1.71	\$3.42	\$6.74
Projected Rx Rebate:	В3	-\$14.00	-\$28.00	-\$55.16
State Mandates and Assessments				
Vaccines for Vemonters	C1	\$2.50	\$5.00	\$9.85
Blueprint for Health	C2	\$6.01	\$12.02	\$23.68
Health Care Claims Tax	C3 = 0.999% * B1	\$6.83	\$13.65	\$19.26
GMCB Billback	C4	\$1.87	\$3.74	\$7.37
Administrative Charge	D	\$50.00	\$100.00	\$197.00
Commission (% premium)	E 3.00%			
Contribution to Reserve	F 1.50%			
Federal Insurer Fee	G 2.20%			
Required Premium:	$H = [ \Sigma(B_i) + \Sigma(C_i) + D ] / (1 - E - F - G)$	\$791.30	\$1,582.60	\$2,290.50

# MEMBER MONTHS FOR FULL CREDIBILITY BY POOLING POINT

Pooling Limit         Member Month           \$30,000         8,325           \$35,000         9,182           \$40,000         9,990           \$45,000         10,747           \$50,000         11,462           \$55,000         12,142           \$60,000         12,786           \$65,000         13,406           \$70,000         14,002           \$75,000         14,573           \$80,000         15,117           \$85,000         15,633           \$90,000         16,127           \$95,000         16,600           \$100,000         17,055	
\$35,000 9,182 \$40,000 9,990 \$45,000 10,747 \$50,000 11,462 \$55,000 12,142 \$60,000 12,786 \$65,000 13,406 \$70,000 14,002 \$75,000 14,573 \$80,000 15,117 \$85,000 15,633 \$90,000 16,127 \$95,000 16,600 \$100,000 17,055	
\$40,000 9,990 \$45,000 10,747 \$50,000 11,462 \$55,000 12,142 \$60,000 12,786 \$65,000 13,406 \$70,000 14,002 \$75,000 14,573 \$80,000 15,117 \$85,000 15,633 \$90,000 16,127 \$95,000 16,600 \$100,000 17,055	
\$45,000 10,747 \$50,000 11,462 \$55,000 12,142 \$60,000 12,786 \$65,000 13,406 \$70,000 14,002 \$75,000 14,573 \$80,000 15,117 \$85,000 15,633 \$90,000 16,127 \$95,000 16,600 \$100,000 17,055	
\$50,000 11,462 \$55,000 12,142 \$60,000 12,786 \$65,000 13,406 \$70,000 14,002 \$75,000 14,573 \$80,000 15,117 \$85,000 15,633 \$90,000 16,127 \$95,000 16,600 \$100,000 17,055	
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\$100,000 17,055	
\$105,000 17,497	
\$110,000 17,923	
\$115,000 18,338 \$120,000 18,745	
\$125,000 19,140	
\$130,000 19,523	
\$135,000 19,897	
\$140,000 20,266	
\$145,000 20,624	
\$150,000 20,974	
\$155,000 21,313	
\$160,000 21,643	
\$165,000 21,969	
\$170,000 22,289	
\$175,000 22,600	
\$180,000 22,905	
\$185,000 23,199	
\$190,000 23,486	
\$195,000 23,766	
\$200,000 24,039	
\$205,000 24,307	
\$210,000 24,570	
\$215,000 24,827	
\$220,000 25,077	
\$225,000 25,323	
\$230,000 25,563	
\$235,000 25,799	
\$240,000 26,032	
\$245,000 26,259	
\$250,000 26,480	
\$255,000 26,695	
\$260,000 26,905	
\$265,000 27,111	
\$270,000 27,316	
\$275,000 27,517	
\$280,000 27,712	
\$285,000 27,903	
\$290,000 28,086	
\$295,000 28,262	
\$300,000 28,438	_

# ILLUSTRATION OF CONTRACT NORMALIZATION

Month         Increase         Factor         Claims         Claims           Jul-14         1.1699         \$1,000,000         \$1,169,           Aug-14         1.1699         \$1,000,000         \$1,169,           Sep-14         1.1699         \$1,000,000         \$1,169,           Oct-14         1.0400         1.1249         \$1,000,000         \$1,124,           Nov-14         1.1249         \$1,000,000         \$1,124,           Dec-14         1.1249         \$1,000,000         \$1,124,           Jan-15         1.1249         \$1,000,000         \$1,124,           Feb-15         1.1249         \$1,000,000         \$1,124,           Mar-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816
Aug-14       1.1699       \$1,000,000       \$1,169,         Sep-14       1.1699       \$1,000,000       \$1,169,         Oct-14       1.0400       1.1249       \$1,000,000       \$1,124,         Nov-14       1.1249       \$1,000,000       \$1,124,         Dec-14       1.1249       \$1,000,000       \$1,124,         Jan-15       1.1249       \$1,000,000       \$1,124,         Feb-15       1.1249       \$1,000,000       \$1,124,         Mar-15       1.1249       \$1,000,000       \$1,124,         May-15       1.1249       \$1,000,000       \$1,124,         Jun-15       1.1249       \$1,000,000       \$1,124,         Jul-15       1.1249       \$1,000,000       \$1,124,         Aug-15       1.1249       \$1,000,000       \$1,124,         Sep-15       1.1249       \$1,000,000       \$1,124,         Oct-15       1.0400       1.0816       \$1,000,000       \$1,081,         Nov-15       1.0816       \$1,000,000       \$1,081,         Dec-15       1.0816       \$1,000,000       \$1,081,         Feb-16       1.0816       \$1,000,000       \$1,081,
Sep-14         1.1699         \$1,000,000         \$1,169,           Oct-14         1.0400         1.1249         \$1,000,000         \$1,124,           Nov-14         1.1249         \$1,000,000         \$1,124,           Dec-14         1.1249         \$1,000,000         \$1,124,           Jan-15         1.1249         \$1,000,000         \$1,124,           Feb-15         1.1249         \$1,000,000         \$1,124,           Mar-15         1.1249         \$1,000,000         \$1,124,           Apr-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Oct-14         1.0400         1.1249         \$1,000,000         \$1,124,           Nov-14         1.1249         \$1,000,000         \$1,124,           Dec-14         1.1249         \$1,000,000         \$1,124,           Jan-15         1.1249         \$1,000,000         \$1,124,           Feb-15         1.1249         \$1,000,000         \$1,124,           Mar-15         1.1249         \$1,000,000         \$1,124,           Apr-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Nov-14         1.1249         \$1,000,000         \$1,124,           Dec-14         1.1249         \$1,000,000         \$1,124,           Jan-15         1.1249         \$1,000,000         \$1,124,           Feb-15         1.1249         \$1,000,000         \$1,124,           Mar-15         1.1249         \$1,000,000         \$1,124,           Apr-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jun-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Dec-14         1.1249         \$1,000,000         \$1,124,           Jan-15         1.1249         \$1,000,000         \$1,124,           Feb-15         1.1249         \$1,000,000         \$1,124,           Mar-15         1.1249         \$1,000,000         \$1,124,           Apr-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jun-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Jan-15       1.1249       \$1,000,000       \$1,124,         Feb-15       1.1249       \$1,000,000       \$1,124,         Mar-15       1.1249       \$1,000,000       \$1,124,         Apr-15       1.1249       \$1,000,000       \$1,124,         May-15       1.1249       \$1,000,000       \$1,124,         Jun-15       1.1249       \$1,000,000       \$1,124,         Aug-15       1.1249       \$1,000,000       \$1,124,         Sep-15       1.1249       \$1,000,000       \$1,124,         Oct-15       1.0400       1.0816       \$1,000,000       \$1,081,         Nov-15       1.0816       \$1,000,000       \$1,081,         Dec-15       1.0816       \$1,000,000       \$1,081,         Feb-16       1.0816       \$1,000,000       \$1,081,
Feb-15         1.1249         \$1,000,000         \$1,124,           Mar-15         1.1249         \$1,000,000         \$1,124,           Apr-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jun-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Mar-15         1.1249         \$1,000,000         \$1,124,           Apr-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jun-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Apr-15         1.1249         \$1,000,000         \$1,124,           May-15         1.1249         \$1,000,000         \$1,124,           Jun-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Jan-16         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
May-15         1.1249         \$1,000,000         \$1,124,           Jun-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Jan-16         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Jun-15         1.1249         \$1,000,000         \$1,124,           Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Jan-16         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Jul-15         1.1249         \$1,000,000         \$1,124,           Aug-15         1.1249         \$1,000,000         \$1,124,           Sep-15         1.1249         \$1,000,000         \$1,124,           Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Jan-16         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Aug-15       1.1249       \$1,000,000       \$1,124,         Sep-15       1.1249       \$1,000,000       \$1,124,         Oct-15       1.0400       1.0816       \$1,000,000       \$1,081,         Nov-15       1.0816       \$1,000,000       \$1,081,         Dec-15       1.0816       \$1,000,000       \$1,081,         Jan-16       1.0816       \$1,000,000       \$1,081,         Feb-16       1.0816       \$1,000,000       \$1,081,
Sep-15       1.1249       \$1,000,000       \$1,124,         Oct-15       1.0400       1.0816       \$1,000,000       \$1,081,         Nov-15       1.0816       \$1,000,000       \$1,081,         Dec-15       1.0816       \$1,000,000       \$1,081,         Jan-16       1.0816       \$1,000,000       \$1,081,         Feb-16       1.0816       \$1,000,000       \$1,081,
Oct-15         1.0400         1.0816         \$1,000,000         \$1,081,           Nov-15         1.0816         \$1,000,000         \$1,081,           Dec-15         1.0816         \$1,000,000         \$1,081,           Jan-16         1.0816         \$1,000,000         \$1,081,           Feb-16         1.0816         \$1,000,000         \$1,081,
Nov-15       1.0816       \$1,000,000       \$1,081,         Dec-15       1.0816       \$1,000,000       \$1,081,         Jan-16       1.0816       \$1,000,000       \$1,081,         Feb-16       1.0816       \$1,000,000       \$1,081,
Dec-15       1.0816       \$1,000,000       \$1,081,         Jan-16       1.0816       \$1,000,000       \$1,081,         Feb-16       1.0816       \$1,000,000       \$1,081,
Jan-16     1.0816     \$1,000,000     \$1,081,       Feb-16     1.0816     \$1,000,000     \$1,081,
Feb-16 1.0816 \$1,000,000 \$1,081,
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May-16 1.0816 \$1,000,000 \$1,081,
Jun-16 1.0816 \$1,000,000 \$1,081,
Jul-16 1.0816 \$1,000,000 \$1,081,
Aug-16 1.0816 \$1,000,000 \$1,081,
Sep-16 1.0816 \$1,000,000 \$1,081,
Oct-16 1.0400 1.0400 \$1,000,000 \$1,040,
Nov-16 1.0400 \$1,000,000 \$1,040,
Dec-16 1.0400 \$1,000,000 \$1,040,
Jan-17 1.0400 \$1,000,000 \$1,040,
Feb-17 1.0400 \$1,000,000 \$1,040,
Mar-17 1.0400 \$1,000,000 \$1,040,
Apr-17 1.0400 \$1,000,000 \$1,040,
May-17 1.0400 \$1,000,000 \$1,040,
Jun-17 1.0400 \$1,000,000 \$1,040,
Jul-17 1.0400 \$1,000,000 \$1,040,
Aug-17 1.0400 \$1,000,000 \$1,040,
Sep-17 1.0400 \$1,000,000 \$1,040,
Oct-17 1.0400 1.0000 \$1,000,000 \$1,000,
Nov-17 1.0000 \$1,000,000 \$1,000,
Dec-17 1.0000 \$1,000,000 \$1,000,
Jan-18 1.0000 \$1,000,000 \$1,000,
Feb-18 1.0000 \$1,000,000 \$1,000,
Mar-18 1.0000 \$1,000,000 \$1,000,
Apr-18 1.0000 \$1,000,000 \$1,000,
May-18 1.0000 \$1,000,000 \$1,000,
Jun-18 1.0000 \$1,000,000 \$1,000,

#### MEDICAL UTILIZATION TREND CALCULATION

			Original Allowed	Claims (adjusted	to the VHP network)			Adjusted Clain	ns - Normalized fo	r Contract Changes	
Month	Membership	Inpatient	Outpatient	Professional	Total Allowed Claims	PMPM	Inpatient	Outpatient	Professional	Total Allowed Claims	PMPM
Jul-14	68,855	\$4,925,052	\$10,697,274	\$8,504,952	\$24,127,277	\$350.41	\$5,957,370	\$12,785,380	\$8,279,746	\$27,022,496	\$392.46
Aug-14	68,711	\$5,640,921	\$10,209,462	\$8,041,264	\$23,891,646	\$347.71	\$6,871,672	\$12,241,850	\$7,780,706	\$26,894,228	\$391.41
Sep-14	68,611	\$6,128,442	\$10,659,721	\$8,948,249	\$25,736,413	\$375.11	\$7,507,692	\$12,783,435	\$8,762,648	\$29,053,776	\$423.46
Oct-14	66,404	\$6,139,382	\$11,992,914	\$9,648,377	\$27,780,673	\$418.36	\$7,218,435	\$14,070,717	\$9,443,602	\$30,732,754	\$462.81
Nov-14	66,484	\$5,194,883	\$10,273,808	\$8,078,981	\$23,547,671	\$354.19	\$6,179,870	\$11,932,501	\$7,888,866	\$26,001,236	\$391.09
Dec-14	66,505	\$5,133,822	\$12,616,880	\$9,279,549	\$27,030,250	\$406.44	\$6,203,254	\$14,705,095	\$9,051,613	\$29,959,962	\$450.49
Jan-15	65,209	\$4,960,990	\$10,828,057	\$7,825,393	\$23,614,440	\$362.13	\$5,521,870	\$12,165,857	\$7,829,144	\$25,516,872	\$391.31
Feb-15	65,322	\$4,732,182	\$10,651,969	\$7,156,220	\$22,540,371	\$345.07	\$5,361,910	\$11,926,492	\$7,164,155	\$24,452,557	\$374.34
Mar-15	65,179	\$5,640,450	\$11,977,292	\$8,454,774	\$26,072,516	\$400.01	\$6,297,163	\$13,428,393	\$8,484,918	\$28,210,475	\$432.82
Apr-15	64,721	\$5,015,823	\$11,579,909	\$8,210,080	\$24,805,812	\$383.27	\$5,537,535	\$12,991,290	\$8,250,506	\$26,779,331	\$413.77
May-15	64,597	\$5,344,644	\$10,558,581	\$7,882,694	\$23,785,918	\$368.22	\$6,004,039	\$11,823,942	\$7,882,778	\$25,710,760	\$398.02
Jun-15	65,121	\$5,822,340	\$11,507,803	\$8,161,353	\$25,491,497	\$391.45	\$6,490,851	\$12,903,670	\$8,161,161	\$27,555,682	\$423.15
Jul-15	64,832	\$5,108,016	\$11,393,485	\$8,064,873	\$24,566,373	\$378.92	\$5,645,561	\$12,747,581	\$8,067,435	\$26,460,576	\$408.14
Aug-15	64,518	\$5,048,758	\$10,183,546	\$7,607,275	\$22,839,580	\$354.00	\$5,615,566	\$11,367,128	\$7,578,935	\$24,561,629	\$380.69
Sep-15	64,137	\$5,933,837	\$11,356,981	\$8,094,965	\$25,385,784	\$395.81	\$6,598,644	\$12,698,114	\$8,067,342	\$27,364,099	\$426.65
Oct-15	64,092	\$5,343,052	\$11,895,541	\$8,810,077	\$26,048,670	\$406.43	\$5,857,843	\$13,183,043	\$8,770,557	\$27,811,443	\$433.93
Nov-15	64,102	\$5,835,311	\$11,250,318	\$8,128,167	\$25,213,795	\$393.34	\$6,404,175	\$12,455,457	\$8,085,170	\$26,944,802	\$420.34
Dec-15	64,301	\$4,340,154	\$13,058,893	\$8,734,342	\$26,133,389	\$406.42	\$4,774,344	\$14,408,539	\$8,686,176	\$27,869,059	\$433.42
Jan-16	60,146	\$4,757,847	\$10,644,978	\$7,353,326	\$22,756,151	\$378.35	\$5,099,537	\$11,428,230	\$7,293,193	\$23,820,960	\$396.05
Feb-16	60,017	\$4,775,451	\$10,746,162	\$7,327,377	\$22,848,989	\$380.71	\$5,103,326	\$11,530,263	\$7,256,131	\$23,889,719	\$398.05
Mar-16	60,007	\$4,889,208	\$11,792,210	\$8,182,759	\$24,864,177	\$414.35	\$5,241,663	\$12,645,951	\$8,081,974	\$25,969,588	\$432.78
Apr-16	59,837	\$4,496,633	\$10,975,747	\$7,340,605	\$22,812,984	\$381.25	\$4,778,902	\$11,758,422	\$7,254,320	\$23,791,644	\$397.61
May-16	59,314	\$4,104,670	\$11,110,817	\$7,647,872	\$22,863,358	\$385.46	\$4,409,087	\$11,953,083	\$7,538,418	\$23,900,588	\$402.95
Jun-16	59,091	\$5,300,926	\$11,646,146	\$7,739,381	\$24,686,454	\$417.77	\$5,667,384	\$12,510,012	\$7,645,080	\$25,822,476	\$437.00
Jul-16	58,874	\$5,240,866	\$9,878,785	\$6,896,384	\$22,016,035	\$373.95	\$5,574,386	\$10,615,164	\$6,788,721	\$22,978,271	\$390.30
Aug-16	58,734	\$5,094,198	\$10,953,955	\$7,832,154	\$23,880,307	\$406.58	\$5,407,015	\$11,753,950	\$7,735,390	\$24,896,354	\$423.88
Sep-16	58,673	\$5,767,045	\$11,135,113	\$7,859,355	\$24,761,513	\$422.03	\$6,176,371	\$11,929,011	\$7,735,325	\$25,840,707	\$440.42
Oct-16	58,843	\$4,590,242	\$11,564,935	\$7,964,451	\$24,119,628	\$409.90	\$4,902,513	\$12,296,821	\$7,845,386	\$25,044,719	\$425.62
Nov-16	58,834	\$5,212,875	\$11,612,035	\$8,447,491	\$25,272,400	\$429.55	\$5,544,114	\$12,333,997	\$8,306,279	\$26,184,391	\$445.06
Dec-16	58,349	\$5,535,788	\$11,822,352	\$8,291,195	\$25,649,335	\$439.58	\$5,875,583	\$12,569,872	\$8,148,370	\$26,593,825	\$455.77
Jan-17	59,709	\$5,505,776	\$11,057,318	\$8,086,055	\$24,649,149	\$412.82	\$5,728,314	\$11,525,876	\$8,064,399	\$25,318,589	\$424.03
Feb-17	59,577	\$4,112,372	\$10,495,208	\$7,177,806	\$21,785,385	\$365.67	\$4,272,541	\$10,936,692	\$7,122,674	\$22,331,907	\$374.84
Mar-17	59,382	\$5,125,416	\$12,020,916	\$8,254,675	\$25,401,006	\$427.76	\$5,327,400	\$12,520,281	\$8,173,479	\$26,021,160	\$438.20
Apr-17	59,297	\$4,243,662	\$10,513,027	\$7,462,780	\$22,219,469	\$374.71	\$4,405,790	\$10,952,523	\$7,393,366	\$22,751,679	\$383.69
May-17 Jun-17	59,362	\$5,150,118	\$12,220,191	\$8,432,085	\$25,802,394	\$434.66	\$5,340,393	\$12,729,424	\$8,341,026	\$26,410,844	\$444.91
	59,379	\$5,817,140	\$11,363,336	\$8,145,897	\$25,326,373	\$426.52	\$6,050,994	\$11,838,222	\$8,046,381	\$25,935,598	\$436.78
Jul-17	59,380 59,336	\$6,337,273	\$10,516,360	\$7,534,441	\$24,388,073	\$410.71	\$6,545,033	\$10,903,966	\$7,418,210	\$24,867,209	\$418.78
Aug-17 Sep-17	59,336	\$4,849,738	\$11,014,636	\$8,154,737	\$24,019,111	\$404.80	\$5,011,734	\$11,421,371	\$8,008,412	\$24,441,517	\$411.92
Oct-17	58,735	\$4,239,362 \$6,181,001	\$11,065,699 \$12,260,301	\$7,671,371 \$8,737,106	\$22,976,432 \$27,178,408	\$390.97 \$462.73	\$4,361,834 \$6,333,178	\$11,469,246 \$12,482,703	\$7,541,401 \$8,575,299	\$23,372,481 \$27,391,180	\$397.71 \$466.35
Nov-17	58,865										
Dec-17	58,792	\$5,122,180 \$6,462,233	\$11,923,411 \$11,577,205	\$8,630,445 \$8,182,997	\$25,676,036 \$26,222,435	\$436.19 \$446.02	\$5,239,903 \$6,599,119	\$12,143,828 \$11,779,955	\$8,470,986 \$8,031,257	\$25,854,716 \$26,410,331	\$439.22 \$449.22
Jan-18	56,813	\$5,462,233 \$5,817,801	\$11,577,205	\$8,182,997	\$26,222,435 \$26,991,525	\$446.02 \$475.09	\$5,839,706	\$11,779,955	\$8,031,257	\$26,410,331	\$449.22 \$476.65
Feb-18	56,466	\$5,093,015	\$11,480,970	\$7,844,359	\$24,418,344	\$475.09	\$5,839,706	\$11,506,836	\$7,870,378	\$24,483,598	\$433.60
Mar-18	56,313	\$4,568,237	\$11,480,970	\$7,844,359 \$8,197,581	\$24,418,344 \$25,115,938	\$432.44 \$446.01	\$4,573,171	\$11,506,836	\$8,215,263	\$24,483,598 \$25,159,850	\$433.60
Apr-18	56,488	\$5,707,549	\$11,435,883	\$8,139,553	\$25,282,985	\$447.58	\$5,711,826	\$11,447,617	\$8,151,952	\$25,311,395	\$448.08
May-18	56,688	\$5,960,212	\$12,165,973	\$8,640,732	\$25,262,965	\$472.18	\$5,711,626	\$12,172,017	\$8,647,029	\$25,311,395	\$472.55
Jun-18	56,666	\$4,822,335	\$11,267,500	\$7,946,873	\$24,036,708	\$472.18	\$4,822,335	\$11,267,500	\$7,946,873	\$24,036,708	\$472.55
5311-10	30,000	J4,022,333	¥11,207,JUU	21,740,013	324,030,700	J444.10	J4,022,333	J11,207,300	J1,740,013	324,030,700	J444.10

4.2%

#### BLUE CROSS AND BLUE SHIELD OF VERMONT 2020 ASSOCIATION HEALTH PLAN RATING PROGRAM FILING

#### MEDICAL UTILIZATION TREND CALCULATION

			Monthly PMPM			Rolling 12 PMPM		Regressi	on on Adjusted PMPM - 3	6 Months	Regress	on on Adjusted PMPM - 2	4 Months
Month	Membership	Facility	Professional	Total	Facility	Professional	Total	Facility	Professional	Total	Facility	Professional	Total
Jul-14	68,855	\$272.21	\$120.25	\$392.46	,			\$277.42	\$116.23	\$393.42	\$271.86	\$110.10	\$381.41
Aug-14	68,711	\$278.17	\$113.24	\$391.41				\$277.92	\$116.76	\$394.47	\$272.50	\$110.77	\$382.76
Sep-14	68,611	\$295.74	\$127.71	\$423.46				\$278.43	\$117.30	\$395.53	\$273.14	\$111.45	\$384.10
Oct-14	66,404	\$320.60	\$142.21	\$462.81				\$278.91	\$117.83	\$396.56	\$273.76	\$112.10	\$385.41
Nov-14	66,484	\$272.43	\$118.66	\$391.09				\$279.42	\$118.37	\$397.63	\$274.40	\$112.79	\$386.77
Dec-14	66,505	\$314.39	\$136.10	\$450.49				\$279.91	\$118.90	\$398.66	\$275.03	\$113.45	\$388.09
Jan-15	65,209	\$271.25	\$120.06	\$391.31				\$280.41	\$119.45	\$399.73	\$275.68	\$114.14	\$389.46
Feb-15	65,322	\$264.66	\$109.67	\$374.34				\$280.92	\$120.00	\$400.81	\$276.32	\$114.84	\$390.83
Mar-15	65,179	\$302.64	\$130.18	\$432.82				\$281.38	\$120.50	\$401.78	\$276.91	\$115.47	\$392.08
Apr-15	64,721	\$286.29	\$127.48	\$413.77				\$281.89	\$121.05	\$402.86	\$277.56	\$116.17	\$393.46
May-15	64,597	\$275.99	\$122.03	\$398.02				\$282.38	\$121.59	\$403.91	\$278.19	\$116.85	\$394.80
Jun-15	65,121	\$297.82	\$125.32	\$423.15	\$287.68	\$124.39	\$412.07	\$282.89	\$122.15	\$405.00	\$278.85	\$117.56	\$396.19
Jul-15	64,832	\$283.70	\$124.44	\$408.14	\$288.70	\$124.75	\$413.45	\$283.39	\$122.70	\$406.05	\$279.48	\$118.26	\$397.55
Aug-15	64,518	\$263.22	\$117.47	\$380.69	\$287.53	\$125.16	\$412.69	\$283.90	\$123.26	\$407.14	\$280.14	\$118.98	\$398.95
Sep-15	64,137	\$300.87	\$125.78	\$426.65	\$287.90	\$124.99	\$412.89	\$284.42	\$123.83	\$408.24	\$280.80	\$119.70	\$400.35
Oct-15	64,092	\$297.09	\$136.84	\$433.93	\$285.87	\$124.50	\$410.37	\$284.92	\$124.38	\$409.30	\$281.44	\$120.41	\$401.72
Nov-15	64,102	\$294.21	\$126.13	\$420.34	\$287.71	\$125.13	\$412.84	\$285.43	\$124.96	\$410.40	\$282.10	\$121.14	\$403.14
Dec-15	64,301	\$298.33	\$135.09	\$433.42	\$286.30	\$125.02	\$411.32	\$285.93	\$125.52	\$411.47	\$282.74	\$121.85	\$404.51
Jan-16	60,146	\$274.79	\$121.26	\$396.05	\$286.68	\$125.14	\$411.82	\$286.45	\$126.09	\$412.57	\$283.41	\$122.59	\$405.94
Feb-16	60,017	\$277.15	\$120.90	\$398.05	\$287.81	\$126.13	\$413.94	\$286.97	\$126.68	\$413.68	\$284.08	\$123.34	\$407.37
Mar-16	60,007	\$298.09	\$134.68	\$432.78	\$287.35	\$126.46	\$413.81	\$287.45	\$127.22	\$414.72	\$284.70	\$124.04	\$408.71
Apr-16	59,837	\$276.37	\$121.23	\$397.61	\$286.57	\$125.96	\$412.53	\$287.97	\$127.81	\$415.84	\$285.37	\$124.80	\$410.15
May-16	59,314	\$275.86	\$127.09	\$402.95	\$286.64	\$126.38	\$413.02	\$288.48	\$128.38	\$416.92	\$286.02	\$125.53	\$411.55
Jun-16	59,091	\$307.62	\$129.38	\$437.00	\$287.32	\$126.71	\$414.04	\$289.00	\$128.97	\$418.04	\$286.69	\$126.30	\$413.00
Jul-16	58,874	\$274.99	\$115.31	\$390.30	\$286.66	\$126.00	\$412.66	\$289.51	\$129.55	\$419.13	\$287.35	\$127.04	\$414.41
Aug-16	58,734	\$292.18	\$131.70	\$423.88	\$289.16	\$127.21	\$416.38	\$290.03	\$130.14	\$420.25	\$288.02	\$127.81	\$415.87
Sep-16	58,673	\$308.58	\$131.84	\$440.42	\$289.70	\$127.71	\$417.41	\$290.55	\$130.74	\$421.38	\$288.70	\$128.59	\$417.34
Oct-16	58,843	\$292.29	\$133.33	\$425.62	\$289.25	\$127.36	\$416.61	\$291.06	\$131.33	\$422.48	\$289.36	\$129.35	\$418.76
Nov-16	58,834	\$303.87	\$141.18	\$445.06	\$290.01	\$128.60	\$418.61	\$291.59	\$131.93	\$423.62	\$290.04	\$130.13	\$420.24
Dec-16	58,349	\$316.12	\$139.65	\$455.77	\$291.40	\$128.92	\$420.33	\$292.10	\$132.52	\$424.72	\$290.70	\$130.90	\$421.67
Jan-17	59,709	\$288.97	\$135.06	\$424.03	\$292.60	\$130.09	\$422.69	\$292.63	\$133.13	\$425.86	\$291.38	\$131.70	\$423.16
Feb-17	59,577	\$255.29	\$119.55	\$374.84	\$290.78	\$129.98	\$420.76	\$293.16	\$133.75	\$427.00	\$292.07	\$132.50	\$424.65
Mar-17	59,382	\$300.56	\$137.64	\$438.20	\$290.98	\$130.23	\$421.20	\$293.64	\$134.30	\$428.04	\$292.69	\$133.23	\$426.00
Apr-17	59,297	\$259.01	\$124.68	\$383.69	\$289.54	\$130.52	\$420.06	\$294.17	\$134.92	\$429.19	\$293.38	\$134.04	\$427.50
May-17	59,362	\$304.40	\$140.51	\$444.91	\$291.93	\$131.64	\$423.57	\$294.69	\$135.53	\$430.31	\$294.04	\$134.83	\$428.96
Jun-17	59,379	\$301.27	\$135.51	\$436.78	\$291.40	\$132.16	\$423.56	\$295.22	\$136.15	\$431.46	\$294.74	\$135.65	\$430.47
Jul-17	59,380	\$293.85	\$124.93	\$418.78	\$292.97	\$132.95	\$425.92	\$295.74	\$136.76	\$432.59	\$295.41	\$136.45	\$431.94
Aug-17	59,336	\$276.95	\$134.97	\$411.92	\$291.70	\$133.22	\$424.92	\$296.27	\$137.39	\$433.75	\$296.10	\$137.28	\$433.47
Sep-17	58,768	\$269.38	\$128.32	\$397.71	\$288.45	\$132.93	\$421.38	\$296.81	\$138.02	\$434.92	\$296.80	\$138.11	\$434.99
Oct-17	58,735	\$320.35	\$146.00	\$466.35	\$290.77	\$133.98	\$424.75	\$297.33	\$138.64	\$436.05	\$297.47	\$138.93	\$436.48
Nov-17	58,865	\$295.32	\$143.91	\$439.22	\$290.07	\$134.20	\$424.27	\$297.87	\$139.28	\$437.22	\$298.17	\$139.77	\$438.02
Dec-17	58,792	\$312.61	\$136.60	\$449.22	\$289.79	\$133.96	\$423.75	\$298.39	\$139.90	\$438.36	\$298.85	\$140.59	\$439.51
Jan-18	56,813	\$327.00	\$149.65	\$476.65	\$292.85	\$135.12	\$427.97	\$298.93	\$140.54	\$439.54	\$299.56	\$141.45	\$441.06
Feb-18	56,466	\$294.22	\$139.38	\$433.60	\$296.13	\$136.78	\$432.91	\$299.47	\$141.19	\$440.72	\$300.26	\$142.31	\$442.62
Mar-18	56,313	\$300.90	\$145.89	\$446.79	\$296.14	\$137.44	\$433.58	\$299.96	\$141.78	\$441.79	\$300.90	\$143.09	\$444.02
Apr-18	56,488	\$303.77	\$144.31	\$448.08	\$299.91	\$139.08	\$438.99	\$300.50	\$142.43	\$442.97	\$301.61	\$143.96	\$445.59
May-18	56,688	\$320.01	\$152.54	\$472.55	\$301.16	\$140.05	\$441.21	\$301.03	\$143.07	\$444.13	\$302.29	\$144.81	\$447.11
Jun-18	56,666	\$283.94	\$140.24	\$424.18	\$299.75	\$140.46	\$440.20	\$301.57	\$143.73	\$445.32	\$303.00	\$145.69	\$448.69

2.2%

Regressions

Annual Trend

24.189 1.308 0.058 10.518 1.217 0.054 0.031 2.307 0.055 3.308 2.433 0.058 22.000 1.000 0.000 0.097 0.234 1.205 0.054 1.000 0.000 0.214 1.000 0.000 0.064 1.509 11.420 2.648 0.064 22.000 1.000 0.000 0.376 1.000 1.000 0.000 0.154 4.006 0.000 3.633 34.000 27.677 34.000 9.237 34.000 13.254 22.000

3.2%

MEDICAL UTILIZATION TREND CALCULATION

						Hilization Tro	and Calculate	ion - 48 Month 1	Fima Carias						
		Adjusted Claims -		Holt-Winters' A	Multiplicative	Multipli		Holt-Winter		Addit	tive	Damped Trend	Non-Seasonal	Smoot	:hing
Month	Membership	Normalized for Contract Changes	Adjusted PMPM	Monthly PMPM	Rolling 12 PMPM										
Jul-14	68855	\$27,022,496	\$392.46	\$392.46	FMFM										
Aug-14	68711	\$26,894,228	\$391.41	\$391.41		\$391.41		\$391.41		\$391.41		\$391.41		\$391.41	
Sep-14	68611	\$29,053,776	\$423.46	\$423.46		\$423.46		\$423.46		\$423.46		\$423.46		\$423.46	
Oct-14	66404	\$30,732,754	\$462.81	\$462.81		\$462.81		\$462.81		\$462.81		\$462.81		\$462.81	
Nov-14	66484	\$26,001,236	\$391.09	\$391.09		\$391.09		\$391.09		\$391.09		\$391.09		\$391.09	
Dec-14	66505	\$29,959,962	\$450.49	\$450.49		\$450.49		\$450.49		\$450.49		\$450.49		\$450.49	
Jan-15	65209	\$25,516,872	\$391.31	\$391.31		\$391.31		\$391.31		\$391.31		\$391.31		\$391.31	
Feb-15 Mar-15	65322 65179	\$24,452,557 \$28,210,475	\$374.34 \$432.82	\$374.34 \$432.82											
Apr-15	64721	\$26,779,331	\$413.77	\$413.77		\$413.77		\$413.77		\$413.77		\$413.77		\$413.77	
May-15	64597	\$25,710,760	\$398.02	\$398.02		\$398.02		\$398.02		\$398.02		\$398.02		\$398.02	
Jun-15	65121	\$27,555,682	\$423.15	\$423.15	\$412.07	\$423.15	\$412.07	\$423.15	\$412.07	\$423.15	\$412.07	\$423.15	\$412.07	\$423.15	\$412.07
Jul-15	64832	\$26,460,576	\$408.14	\$408.14	\$413.45	\$408.14	\$413.45	\$408.14	\$413.45	\$408.14	\$413.45	\$408.14	\$413.45	\$408.14	\$413.45
Aug-15	64518	\$24,561,629	\$380.69	\$380.69	\$412.69	\$380.69	\$412.69	\$380.69	\$412.69	\$380.69	\$412.69	\$380.69	\$412.69	\$380.69	\$412.69
Sep-15	64137	\$27,364,099	\$426.65	\$426.65	\$412.89	\$426.65	\$412.89	\$426.65	\$412.89	\$426.65	\$412.89	\$426.65	\$412.89	\$426.65	\$412.89
Oct-15	64092	\$27,811,443	\$433.93	\$433.93	\$410.37	\$433.93	\$410.37	\$433.93	\$410.37	\$433.93	\$410.37	\$433.93	\$410.37	\$433.93	\$410.37
Nov-15 Dec-15	64102 64301	\$26,944,802 \$27,869,059	\$420.34 \$433.42	\$420.34 \$433.42	\$412.84 \$411.32										
Jan-16	60146	\$23,820,960	\$396.05	\$396.05	\$411.82	\$396.05	\$411.82	\$396.05	\$411.82	\$396.05	\$411.82	\$396.05	\$411.82	\$396.05	\$411.32
Feb-16	60017	\$23,889,719	\$398.05	\$398.05	\$413.94	\$398.05	\$413.94	\$398.05	\$413.94	\$398.05	\$413.94	\$398.05	\$413.94	\$398.05	\$413.94
Mar-16	60007	\$25,969,588	\$432.78	\$432.78	\$413.81	\$432.78	\$413.81	\$432.78	\$413.81	\$432.78	\$413.81	\$432.78	\$413.81	\$432.78	\$413.81
Apr-16	59837	\$23,791,644	\$397.61	\$397.61	\$412.53	\$397.61	\$412.53	\$397.61	\$412.53	\$397.61	\$412.53	\$397.61	\$412.53	\$397.61	\$412.53
May-16	59314	\$23,900,588	\$402.95	\$402.95	\$413.02	\$402.95	\$413.02	\$402.95	\$413.02	\$402.95	\$413.02	\$402.95	\$413.02	\$402.95	\$413.02
Jun-16	59091	\$25,822,476	\$437.00	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04
Jul-16	58874	\$22,978,271	\$390.30	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66
Aug-16 Sep-16	58734 58673	\$24,896,354 \$25,840,707	\$423.88 \$440.42	\$423.88 \$440.42	\$416.38 \$417.41										
Oct-16	58843	\$25,044,719	\$425.62	\$425.62	\$417.41	\$425.62	\$416.61	\$425.62	\$417.41	\$425.62	\$416.61	\$425.62	\$416.61	\$425.62	\$417.41
Nov-16	58834	\$26,184,391	\$445.06	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61
Dec-16	58349	\$26,593,825	\$455.77	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33
Jan-17	59709	\$25,318,589	\$424.03	\$424.03	\$422.69	\$424.03	\$422.69	\$424.03	\$422.69	\$424.03	\$422.69	\$424.03	\$422.69	\$424.03	\$422.69
Feb-17	59577	\$22,331,907	\$374.84	\$374.84	\$420.76	\$374.84	\$420.76	\$374.84	\$420.76	\$374.84	\$420.76	\$374.84	\$420.76	\$374.84	\$420.76
Mar-17	59382	\$26,021,160	\$438.20	\$438.20	\$421.20	\$438.20	\$421.20	\$438.20	\$421.20	\$438.20	\$421.20	\$438.20	\$421.20	\$438.20	\$421.20
Apr-17	59297	\$22,751,679	\$383.69	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06
May-17 Jun-17	59362 59379	\$26,410,844 \$25,935,598	\$444.91 \$436.78	\$444.91 \$436.78	\$423.57 \$423.56										
Jul-17	59380	\$24,867,209	\$418.78	\$418.78	\$425.92	\$418.78	\$425.92	\$418.78	\$425.92	\$418.78	\$425.92	\$418.78	\$425.92	\$418.78	\$425.92
Aug-17	59336	\$24,441,517	\$411.92	\$411.92	\$424.92	\$411.92	\$424.92	\$411.92	\$424.92	\$411.92	\$424.92	\$411.92	\$424.92	\$411.92	\$424.92
Sep-17	58768	\$23,372,481	\$397.71	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38
Oct-17	58735	\$27,391,180	\$466.35	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75
Nov-17	58865	\$25,854,716	\$439.22	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27
Dec-17 Jan-18	58792 56813	\$26,410,331	\$449.22	\$449.22	\$423.75	\$449.22	\$423.75	\$449.22	\$423.75	\$449.22	\$423.75	\$449.22	\$423.75	\$449.22	\$423.75
Feb-18	56466	\$27,079,725 \$24,483,598	\$476.65 \$433.60	\$476.65 \$433.60	\$427.97 \$432.91										
Mar-18	56313	\$25,159,850	\$446.79	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58
Apr-18	56488	\$25,311,395	\$448.08	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99
May-18	56688	\$26,787,827	\$472.55	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21
Jun-18	56666	\$24,036,708	\$424.18	\$424.18	\$440.20	\$424.18	\$440.20	\$424.18	\$440.20	\$424.18	\$440.20	\$424.18	\$440.20	\$424.18	\$440.20
Jul-18	56666			\$429.91	\$441.20	\$429.82	\$441.19	\$430.87	\$441.28	\$430.78	\$441.27	\$444.09	\$442.36	\$445.57	\$442.48
Aug-18	56666			\$432.84	\$443.04	\$432.75	\$443.02	\$433.71	\$443.19	\$433.62	\$443.17	\$446.07	\$445.29	\$446.81	\$445.48
Sep-18	56666			\$441.23	\$446.77	\$441.13	\$446.75	\$442.08	\$446.99	\$441.97	\$446.97	\$447.84	\$449.58	\$448.05	\$449.78
Oct-18	56666			\$481.87	\$448.00	\$481.76	\$447.97	\$480.41	\$448.10	\$480.29	\$448.07	\$449.44	\$448.13	\$449.29	\$448.32
Nov-18	56666			\$463.26	\$450.03	\$463.14	\$449.98	\$462.71	\$450.08	\$462.58	\$450.04	\$450.88	\$449.13	\$450.54	\$449.29
Dec-18	56666			\$482.45	\$452.80	\$482.30	\$452.74	\$481.02	\$452.74	\$480.88	\$452.68	\$452.17	\$449.37	\$451.78	\$449.50
Jan-19	56666			\$477.50	\$452.87	\$477.35	\$452.80	\$476.18	\$452.69	\$476.02	\$452.62	\$453.34	\$447.42	\$453.02	\$447.53
Feb-19 Mar-19	56666 56666			\$439.59 \$477.05	\$453.36 \$455.88	\$439.43 \$476.85	\$453.28 \$455.78	\$441.35 \$476.32	\$453.33 \$455.79	\$441.17 \$476.12	\$453.25 \$455.69	\$454.38 \$455.33	\$449.15 \$449.86	\$454.27 \$455.51	\$449.25 \$449.97
Mar-19 Apr-19	56666			\$477.05	\$455.88	\$476.85	\$455.78 \$456.46	\$476.32 \$457.54	\$455.79 \$456.58	\$476.12	\$455.69	\$455.33 \$456.18	\$449.86	\$455.51	\$449.97 \$450.69
Apr-19 May-19	56666			\$456.45	\$456.57	\$456.24	\$455.46	\$457.54 \$484.44	\$456.58	\$457.32 \$484.19	\$456.46	\$456.18 \$456.94	\$450.54	\$456.75	\$450.69
Jun-19	56666			\$465.62	\$461.12	\$465.35	\$460.96	\$466.18	\$461.07	\$465.89	\$460.90	\$457.63	\$452.02	\$457.99	\$452.40
Jul-19	56666			\$455.09	\$463.22	\$454.75	\$463.04	\$457.19	\$463.26	\$456.83	\$463.07	\$458.25	\$453.20	\$460.48	\$453.64
Aug-19	56666			\$458.07	\$465.32	\$457.70	\$465.12	\$460.03	\$465.45	\$459.64	\$465.24	\$458.80	\$454.27	\$461.72	\$454.89
Son-10	56666			\$466.87	\$467.45	\$466.41	\$467.73	\$468.30	\$467.65	\$467.07	\$467.41	\$450.00	\$455.22	\$467.96	\$456.13

\$533.64 **5.21**% 24.24 1.96% 25.71 3.08% 25.1 Utilization Trend 5.29% 5.28% 5.21% 24.23 RMSE (root mean square error) 24.1 24.11

\$468.39

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Sep-19 Oct-19

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MEDICAL UTILIZATION TREND CALCULATION


		Adioakad Claima		Holt-Winters' M	ultiplicative	Utilization Tre		ion - 36 Month 1 Holt-Winters		Addit	ive	Damped Trend N	Ion-Seasonal	Smooth	ina
		Adjusted Claims - Normalized for	Adjusted	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12
Month Jul-15	Membership 64832	Contract Changes \$26,460,576	PMPM \$408.14	\$408.14	PMPM	\$408.14	PMPM	\$408.14	PMPM	\$408.14	PMPM	\$408.14	PMPM	\$408.14	PMPM
Aug-15	64518	\$24,561,629	\$380.69	\$380.69		\$380.69		\$380.69		\$380.69		\$380.69		\$380.69	
Sep-15	64137	\$27,364,099	\$426.65	\$426.65		\$426.65		\$426.65		\$426.65		\$426.65		\$426.65	
Oct-15	64092	\$27,811,443	\$433.93	\$433.93		\$433.93		\$433.93		\$433.93		\$433.93		\$433.93	
Nov-15 Dec-15	64102 64301	\$26,944,802 \$27,869,059	\$420.34 \$433.42	\$420.34 \$433.42		\$420.34 \$433.42		\$420.34 \$433.42		\$420.34 \$433.42		\$420.34 \$433.42		\$420.34 \$433.42	
Jan-16	60146	\$23,820,960	\$396.05	\$396.05		\$396.05		\$396.05		\$396.05		\$396.05		\$396.05	
Feb-16	60017	\$23,889,719	\$398.05	\$398.05		\$398.05		\$398.05		\$398.05		\$398.05		\$398.05	
Mar-16	60007	\$25,969,588	\$432.78	\$432.78		\$432.78		\$432.78		\$432.78		\$432.78		\$432.78	
Apr-16 May-16	59837 59314	\$23,791,644 \$23,900,588	\$397.61 \$402.95	\$397.61 \$402.95		\$397.61 \$402.95		\$397.61 \$402.95		\$397.61 \$402.95		\$397.61 \$402.95		\$397.61 \$402.95	
Jun-16	59091	\$25,822,476	\$437.00	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04	\$437.00	\$414.04
Jul-16	58874	\$22,978,271	\$390.30	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66	\$390.30	\$412.66
Aug-16 Sep-16	58734 58673	\$24,896,354 \$25,840,707	\$423.88 \$440.42	\$423.88 \$440.42	\$416.38 \$417.41	\$423.88 \$440.42	\$416.38 \$417.41	\$423.88 \$440.42	\$416.38 \$417.41	\$423.88 \$440.42	\$416.38	\$423.88 \$440.42	\$416.38 \$417.41	\$423.88 \$440.42	\$416.38 \$417.41
Oct-16	58843	\$25,044,719	\$425.62	\$425.62	\$416.61	\$425.62	\$416.61	\$425.62	\$416.61	\$425.62	\$417.41 \$416.61	\$425.62	\$416.61	\$425.62	\$416.61
Nov-16	58834	\$26,184,391	\$445.06	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61	\$445.06	\$418.61
Dec-16	58349	\$26,593,825	\$455.77	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33	\$455.77	\$420.33
Jan-17 Feb-17	59709 59577	\$25,318,589 \$22,331,907	\$424.03 \$374.84	\$424.03 \$374.84	\$422.69 \$420.76	\$424.03 \$374.84	\$422.69 \$420.76	\$424.03 \$374.84	\$422.69 \$420.76	\$424.03 \$374.84	\$422.69 \$420.76	\$424.03 \$374.84	\$422.69 \$420.76	\$424.03 \$374.84	\$422.69 \$420.76
Mar-17	59382	\$26,021,160	\$438.20	\$438.20	\$420.76	\$438.20	\$420.76	\$438.20	\$420.76	\$438.20	\$420.76	\$438.20	\$420.76	\$438.20	\$420.76
Apr-17	59297	\$22,751,679	\$383.69	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06	\$383.69	\$420.06
May-17	59362	\$26,410,844	\$444.91	\$444.91	\$423.57	\$444.91	\$423.57	\$444.91	\$423.57	\$444.91	\$423.57	\$444.91	\$423.57	\$444.91	\$423.57
Jun-17	59379	\$25,935,598	\$436.78	\$436.78	\$423.56	\$436.78	\$423.56	\$436.78	\$423.56	\$436.78	\$423.56	\$436.78	\$423.56	\$436.78	\$423.56
Jul-17 Aug-17	59380 59336	\$24,867,209 \$24,441,517	\$418.78 \$411.92	\$418.78 \$411.92	\$425.92 \$424.92	\$418.78 \$411.92	\$425.92 \$424.92	\$418.78 \$411.92	\$425.92 \$424.92	\$418.78 \$411.92	\$425.92 \$424.92	\$418.78 \$411.92	\$425.92 \$424.92	\$418.78 \$411.92	\$425.92 \$424.92
Sep-17	58768	\$23,372,481	\$397.71	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38
Oct-17	58735	\$27,391,180	\$466.35	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75
Nov-17	58865	\$25,854,716	\$439.22	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27
Dec-17 Jan-18	58792 56813	\$26,410,331 \$27,079,725	\$449.22 \$476.65	\$449.22 \$476.65	\$423.75 \$427.97	\$449.22 \$476.65	\$423.75 \$427.97	\$449.22 \$476.65	\$423.75 \$427.97	\$449.22 \$476.65	\$423.75 \$427.97	\$449.22 \$476.65	\$423.75 \$427.97	\$449.22 \$476.65	\$423.75 \$427.97
Feb-18	56466	\$27,079,725	\$433.60	\$433.60	\$432.91	\$433.60	\$432.91	\$433.60	\$432.91	\$433.60	\$432.91	\$433.60	\$432.91	\$433.60	\$432.91
Mar-18	56313	\$25,159,850	\$446.79	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58
Apr-18	56488	\$25,311,395	\$448.08	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99	\$448.08	\$438.99
May-18 Jun-18	56688 56666	\$26,787,827	\$472.55	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21	\$472.55	\$441.21
Juli-18	56666	\$24,036,708	\$424.18	\$424.18 \$435.41	\$440.20 \$441.65	\$424.18 \$435.33	\$440.20 \$441.64	\$424.18 \$436.33	\$440.20 \$441.73	\$424.18 \$436.25	\$440.20 \$441.72	\$424.18 \$448.29	\$440.20 \$442.71	\$424.18 \$448.44	\$440.20 \$442.72
Aug-18	56666			\$429.48	\$443.21	\$429.38	\$443.20	\$430.01	\$443.33	\$429.90	\$443.32	\$450.42	\$446.00	\$450.57	\$446.02
Sep-18	56666			\$453.32	\$447.95	\$453.22	\$447.92	\$453.73	\$448.10	\$453.63	\$448.08	\$452.55	\$450.68	\$452.71	\$450.72
Oct-18	56666			\$479.26	\$448.96	\$479.13	\$448.93	\$477.06	\$448.93	\$476.93	\$448.90	\$454.67	\$449.66	\$454.85	\$449.72
Nov-18 Dec-18	56666 56666			\$469.86 \$484.54	\$451.54 \$454.49	\$469.72 \$484.38	\$451.49 \$454.43	\$468.39 \$482.05	\$451.39 \$454.13	\$468.25 \$481.89	\$451.34 \$454.07	\$456.79 \$458.91	\$451.16 \$451.97	\$456.98 \$459.12	\$451.23 \$452.06
Jan-19	56666			\$469.19	\$453.87	\$468.99	\$453.79	\$467.12	\$453.34	\$466.92	\$453.26	\$461.02	\$450.66	\$461.25	\$450.77
Feb-19	56666			\$444.69	\$454.79	\$444.50	\$454.69	\$446.25	\$454.38	\$446.05	\$454.29	\$463.14	\$453.12	\$463.39	\$453.25
Mar-19	56666			\$483.94	\$457.88	\$483.70	\$457.77	\$482.14	\$457.33	\$481.92	\$457.22	\$465.25	\$454.66	\$465.53	\$454.81
Apr-19 May-19	56666 56666			\$454.51 \$481.82	\$458.41 \$459.18	\$454.25 \$481.51	\$458.28 \$459.02	\$455.48 \$479.65	\$457.94 \$458.53	\$455.22 \$479.35	\$457.81 \$458.37	\$467.36 \$469.47	\$456.26 \$456.00	\$467.66 \$469.80	\$456.44 \$456.21
Jun-19	56666			\$481.98	\$464.00	\$481.66	\$463.81	\$481.32	\$463.29	\$481.02	\$463.11	\$471.58	\$459.95	\$471.93	\$460.19
Jul-19	56666			\$464.84	\$466.45	\$464.46	\$466.24	\$466.08	\$465.77	\$465.71	\$465.57	\$473.68	\$462.07	\$474.07	\$462.32
Aug-19	56666			\$458.35	\$468.86	\$457.93	\$468.62	\$459.76	\$468.25	\$459.33	\$468.02	\$475.78	\$464.18	\$476.21	\$464.46
Sep-19 Oct-19	56666			\$483.61	\$471.38	\$483.16	\$471.12	\$483.48	\$470.73	\$483.03	\$470.47	\$477.88	\$466.29	\$478.34	\$466.59
Nov-19	56666 56666			\$511.11 \$500.92	\$474.04	\$510.56 \$500.34	\$473.74 \$476.29	\$506.81 \$498.14	\$473.21 \$475.69	\$506.30 \$497.59	\$472.92 \$475.36	\$479.98 \$482.08	\$468.40 \$470.51	\$480.48 \$482.61	\$468.73 \$470.87
Dec-19	56666			\$516.39	\$476.63 \$479.28	\$515.75	\$478.90	\$511.80	\$473.69	\$511.20	\$475.36	\$484.17	\$472.62	\$484.75	\$470.07
Jan-20	56666			\$499.87	\$481.84	\$499.18	\$481.42	\$496.87	\$480.65	\$496.20	\$480.24	\$486.26	\$474.72	\$486.89	\$475.14
Feb-20	56666			\$473.61	\$484.25	\$472.92	\$483.79	\$476.01	\$483.13	\$475.30	\$482.68	\$488.35	\$476.82	\$489.02	\$477.27
Mar-20	56666			\$515.23	\$486.85	\$514.44	\$486.35	\$511.89	\$485.61	\$511.14	\$485.12	\$490.44	\$478.92	\$491.16	\$479.41
Apr-20	56666			\$483.75	\$489.29	\$482.94	\$488.74	\$485.23	\$488.09	\$484.41	\$487.55	\$492.52	\$481.02	\$493.29	\$481.55
May-20	56666			\$512.65	\$491.86	\$511.72	\$491.26	\$509.40	\$490.57	\$508.51	\$489.98	\$494.61	\$483.11	\$495.43	\$483.68
Jun-20	56666			\$512.65	\$494.42	\$511.70	\$493.76	\$511.07	\$493.05	\$510.15	\$492.41	\$496.69	\$485.20	\$497.57	\$485.82
Jul-20	56666			\$494.26	\$496.87	\$493.25	\$496.16	\$495.83	\$495.52 \$498.00	\$494.81 \$488.40	\$494.83	\$498.77	\$487.29 \$489.38	\$499.70 \$501.84	\$487.95 \$490.09
Aug-20 Sep-20	56666 56666			\$487.21 \$513.91	\$499.27 \$501.80	\$486.13 \$512.73	\$498.51 \$500.97	\$489.51 \$513.23	\$498.00	\$488.40	\$497.25 \$499.67	\$500.84 \$502.92	\$489.38 \$491.47	\$501.84	\$490.09
Oct-20	56666			\$542.96	\$504.45	\$541.63	\$503.56	\$536.56	\$502.96	\$535.32	\$502.09	\$504.99	\$493.55	\$506.11	\$494.36
Nov-20	56666			\$531.97	\$507.04	\$530.59	\$506.08	\$527.90	\$505.44	\$526.58	\$504.51	\$507.06	\$495.64	\$508.25	\$496.50
Dec-20	56666			\$548.24	\$509.69	\$546.75	\$508.67	\$541.55	\$507.92	\$540.16	\$506.92	\$509.13	\$497.72	\$510.38	\$498.63
		Utilization Trend			6.05%		5.96%		5.90%		5.82%		5.04%		5.12%
		RMSE (root mean squa	are error)		26.98		26.99		26.74		26.75		23.27		23.26

MEDICAL UTILIZATION TREND CALCULATION

Utilization Trend Calculation - 24 Month Time Series

		Adjusted Claims -		Holt-Winters' M	ultiplicative	Multiplic		Holt-Winters		Addit	ive	Damped Trend	Non-Seasonal	Smoot	hing
Month	Membership	Normalized for Contract Changes	Adjusted PMPM	Monthly PMPM	Rolling 12 PMPM										
Jul-16	58874	\$22,978,271	\$390.30	\$390.30	174174	\$390.30	1 Mil M	\$390.30	1 //u /m	\$390.30	1 Mi M	\$390.30	1 Mil M	\$390.30	1 mi m
Aug-16	58734	\$24,896,354	\$423.88	\$423.88		\$423.88		\$423.88		\$423.88		\$423.88		\$423.88	
Sep-16	58673	\$25,840,707	\$440.42	\$440.42		\$440.42		\$440.42		\$440.42		\$440.42		\$440.42	
Oct-16	58843	\$25,044,719	\$425.62	\$425.62		\$425.62		\$425.62		\$425.62		\$425.62		\$425.62	
Nov-16	58834	\$26,184,391	\$445.06	\$445.06		\$445.06		\$445.06		\$445.06		\$445.06		\$445.06	
Dec-16	58349	\$26,593,825	\$455.77	\$455.77		\$455.77		\$455.77		\$455.77		\$455.77		\$455.77	
Jan-17	59709	\$25,318,589	\$424.03	\$424.03		\$424.03		\$424.03		\$424.03		\$424.03		\$424.03	
Feb-17	59577	\$22,331,907	\$374.84	\$374.84		\$374.84		\$374.84		\$374.84		\$374.84		\$374.84	
Mar-17	59382	\$26,021,160	\$438.20	\$438.20		\$438.20		\$438.20		\$438.20		\$438.20		\$438.20	
Apr-17 May-17	59297 59362	\$22,751,679 \$26,410,844	\$383.69 \$444.91	\$383.69 \$444.91		\$383.69 \$444.91		\$383.69 \$444.91		\$383.69 \$444.91		\$383.69		\$383.69 \$444.91	
Jun-17	59379	\$25,935,598	\$436.78	\$436.78	\$423.56	\$436.78	\$423.56	\$436.78	\$423.56	\$436.78	\$423.56	\$444.91 \$436.78	\$423.79	\$436.78	\$423.79
Jul-17	59380	\$24,867,209	\$418.78	\$418.78	\$425.92	\$418.78	\$425.92	\$418.78	\$425.92	\$418.78	\$425.92	\$418.78	\$426.33	\$418.78	\$426.33
Aug-17	59336	\$24,441,517	\$411.92	\$411.92	\$424.92	\$411.92	\$424.92	\$411.92	\$424.92	\$411.92	\$424.92	\$411.92	\$425.39	\$411.92	\$425.39
Sep-17	58768	\$23,372,481	\$397.71	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.38	\$397.71	\$421.83	\$397.71	\$421.83
Oct-17	58735	\$27,391,180	\$466.35	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$424.75	\$466.35	\$425.13	\$466.35	\$425.13
Nov-17	58865	\$25,854,716	\$439.22	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.27	\$439.22	\$424.50	\$439.22	\$424.50
Dec-17	58792	\$26,410,331	\$449.22	\$449.22	\$423.75	\$449.22	\$423.75	\$449.22	\$423.75	\$449.22	\$423.75	\$449.22	\$423.70	\$449.22	\$423.70
Jan-18	56813	\$27,079,725	\$476.65	\$476.65	\$427.97	\$476.65	\$427.97	\$476.65	\$427.97	\$476.65	\$427.97	\$476.65	\$428.12	\$476.65	\$428.12
Feb-18	56466	\$24,483,598	\$433.60	\$433.60	\$432.91	\$433.60	\$432.91	\$433.60	\$432.91	\$433.60	\$432.91	\$433.60	\$433.09	\$433.60	\$433.09
Mar-18	56313	\$25,159,850	\$446.79	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.58	\$446.79	\$433.80	\$446.79	\$433.80
Apr-18 May-18	56488 56688	\$25,311,395 \$26,787,827	\$448.08 \$472.55	\$448.08 \$472.55	\$438.99 \$441.21	\$448.08 \$472.55	\$438.99 \$441.21	\$448.08 \$472.55	\$438.99 \$441.21	\$448.08 \$472.55	\$438.99 \$441.21	\$448.08 \$472.55	\$439.23 \$441.54	\$448.08 \$472.55	\$439.23 \$441.54
Jun-18	56666	\$24,036,708	\$472.33	\$472.55	\$440.20	\$472.33	\$440.20	\$472.33	\$440.20	\$472.55	\$440.20	\$472.55	\$440.49	\$472.55	\$440.49
Jul-18	56666	\$21,030,700	3424.10	\$429.67	\$441.18	\$417.85	\$440.21	\$431.77	\$441.35	\$434.56	\$441.58	\$445.51	\$442.71	\$452.68	\$443.31
Aug-18	56666			\$427.11	\$442.54	\$435.39	\$442.25	\$427.24	\$442.73	\$427.92	\$443.01	\$445.25	\$445.47	\$454.46	\$446.84
Sep-18	56666			\$419.07	\$444.45	\$440.75	\$445.95	\$419.41	\$444.66	\$418.15	\$444.84	\$445.20	\$449.39	\$456.24	\$451.67
Oct-18	56666			\$479.67	\$445.48	\$460.22	\$445.38	\$481.54	\$445.85	\$483.99	\$446.24	\$445.19	\$447.64	\$458.02	\$450.98
Nov-18	56666			\$455.74	\$446.88	\$460.39	\$447.16	\$455.57	\$447.23	\$456.61	\$447.71	\$445.19	\$448.13	\$459.80	\$452.69
Dec-18	56666			\$467.00	\$448.35	\$471.44	\$449.00	\$466.63	\$448.68	\$467.21	\$449.20	\$445.19	\$447.80	\$461.58	\$453.71
Jan-19	56666			\$484.89	\$449.04	\$461.91	\$447.77	\$486.50	\$449.50	\$489.68	\$450.28	\$445.19	\$445.16	\$463.36	\$452.55
Feb-19	56666			\$433.79	\$449.05	\$410.93	\$445.87	\$436.13	\$449.70	\$439.79	\$450.80	\$445.19	\$446.14	\$465.14	\$455.16
Mar-19 Apr-19	56666 56666			\$451.19 \$442.18	\$449.41 \$448.92	\$454.41 \$419.39	\$446.51 \$444.12	\$450.23 \$444.27	\$449.99 \$449.67	\$451.08 \$446.77	\$451.15 \$451.04	\$445.19 \$445.19	\$446.00 \$445.76	\$466.92 \$468.70	\$456.81 \$458.51
May-19	56666			\$468.37	\$448.57	\$465.87	\$443.56	\$467.83	\$449.87	\$468.63	\$450.71	\$445.19	\$443.43	\$470.48	\$458.29
Jun-19	56666			\$426.38	\$448.76	\$441.74	\$445.02	\$424.42	\$449.30	\$422.78	\$450.60	\$445.19	\$445.22	\$470.46	\$462.35
Jul-19	56666			\$429.86	\$448.77	\$417.51	\$445.00	\$431.97	\$449.31	\$434.03	\$450.55	\$445.19	\$445.20	\$474.03	\$464.14
Aug-19	56666			\$427.30	\$448.79	\$435.26	\$444.99	\$427.44	\$449.33	\$427.73	\$450.54	\$445.19	\$445.19	\$475.81	\$465.94
Sep-19	56666			\$419.26	\$448.80	\$440.70	\$444.98	\$419.61	\$449.35	\$418.08	\$450.53	\$445.19	\$445.19	\$477.59	\$467.73
Oct-19	56666			\$479.88	\$448.82	\$460.20	\$444.98	\$481.75	\$449.36	\$483.96	\$450.53	\$445.19	\$445.19	\$479.37	\$469.53
Nov-19	56666			\$455.94	\$448.84	\$460.38	\$444.98	\$455.78	\$449.38	\$456.60	\$450.53	\$445.19	\$445.19	\$481.15	\$471.34
Dec-19	56666			\$467.21	\$448.85	\$471.43	\$444.98	\$466.83	\$449.40	\$467.21	\$450.53	\$445.19	\$445.19	\$482.93	\$473.15
Jan-20	56666			\$485.11	\$448.87	\$461.91	\$444.98	\$486.70	\$449.41	\$489.68	\$450.53	\$445.19	\$445.19	\$484.71	\$474.93
Feb-20	56666			\$433.99	\$448.89	\$410.93	\$444.98	\$436.33	\$449.43	\$439.79	\$450.53	\$445.19	\$445.19	\$486.49	\$476.71
Mar-20 Apr-20	56666 56666			\$451.39	\$448.91	\$454.41	\$444.98	\$450.43 \$444.48	\$449.45	\$451.08	\$450.53	\$445.19	\$445.19	\$488.27	\$478.48
May-20	56666			\$442.38 \$468.58	\$448.92 \$448.94	\$419.39 \$465.87	\$444.98 \$444.98	\$468.03	\$449.46 \$449.48	\$446.77 \$468.63	\$450.53 \$450.53	\$445.19 \$445.19	\$445.19 \$445.19	\$490.05 \$491.83	\$480.26 \$482.04
Jun-20	56666			\$426.57	\$448.96	\$441.74	\$444.98	\$424.62	\$449.50	\$422.78	\$450.53	\$445.19	\$445.19	\$493.61	\$483.82
Jul-20	56666			\$430.05	\$448.97	\$417.51	\$444.98	\$432.18	\$449.52	\$434.03	\$450.53	\$445.19	\$445.19	\$495.39	\$485.60
Aug-20	56666			\$427.49	\$448.99	\$435.26	\$444.98	\$427.65	\$449.53	\$427.73	\$450.53	\$445.19	\$445.19	\$497.17	\$487.38
Sep-20	56666			\$419.45	\$449.00	\$440.70	\$444.98	\$419.81	\$449.55	\$418.08	\$450.53	\$445.19	\$445.19	\$498.95	\$489.16
Oct-20	56666			\$480.10	\$449.02	\$460.20	\$444.98	\$481.95	\$449.57	\$483.96	\$450.53	\$445.19	\$445.19	\$500.72	\$490.94
Nov-20	56666			\$456.15	\$449.04	\$460.38	\$444.98	\$455.98	\$449.58	\$456.60	\$450.53	\$445.19	\$445.19	\$502.50	\$492.72
Dec-20	56666			\$467.42	\$449.06	\$471.43	\$444.98	\$467.04	\$449.60	\$467.21	\$450.53	\$445.19	\$445.19	\$504.28	\$494.50
				•		•		•		•				•	
		Utilization Trend			0.80%		0.43%		0.85%		0.93%		0.43%		4.74%
		RMSE (root mean squa	are error)		34.96		34.95		34.76		34.74		28.5		28.28

MEDICAL UTILIZATION TREND CALCULATION

Utilization Trend Calculation - Facility Claims - 48 Month Time Series

			Adjusted Claims -		Holt-Winters' N		Multiplic		lity Claims - 48 Holt-Winters		Additi	ive	Damped Trend I	Non-Seasonal	Smootl	hing
March   Marc			Normalized for			Rolling 12		Rolling 12		Rolling 12	l	Rolling 12		Rolling 12	Monthly PMPM	
March   Marc						PMPM		PMPM	· ·	PMPM	,	PMPM	,	PMPM		PMPM
Second   S																
		68611														
Decision   Googy   25,000,000   214,79   214,7																
June 16   6079																
Fig. 16   Fig. 16   Fig. 17   Fig. 18   State   Stat																
Month   Mont																
Morphy   Morphy   S77,0768   S77,076   S77,07   S27,09   S77,07   S77,00   S77,07   S77,00																
Month   Mont																
March   Marc						****		****		****		****		****		****
March   Marc																
0.415   0.4902																
De-15																
June 16   10   10   10   10   10   10   10																
Fe-bia   George   Section   Sectio																
Mar-16   00007																
Month   9999    \$18,77,797   \$107,622   \$227.09   \$226.04   \$227.09   \$226.04   \$227.09   \$226.06   \$227.09   \$226.00   \$227.09   \$226.00   \$227.09   \$226.00   \$227.09   \$226.00   \$227.09   \$226.00   \$227.09   \$226.00   \$227.09   \$226.00   \$227.09   \$226.00   \$227.00   \$226.00   \$226	Apr-16			\$276.37	\$276.37	\$286.57	\$276.37		\$276.37	\$286.57	\$276.37	\$286.57	\$276.37	\$286.57	\$276.37	\$286.57
Mart   Sept																
Augs-16   \$8774   \$17,16944   \$17,16946   \$292.18   \$2																
Sep-16   38673   3516.03.82   3888.83   5888   3289.70   308.88   3289.70   308.58   32																
02-16   58848   571,79,314   5292,70																
Decision   State   S		58843														
Description   Section																
Feb-17 99577 \$15,099,233 \$255,29 \$280,78 \$255,29 \$290,79 \$250,40 \$290,																
Mart   7   99982																
April																
Jun-17   59379   577,889,216   501,72   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,40   501,72   5291,50   5291,70			\$15,358,313			\$289.54										
Mart   99380   \$17,481,999   \$293,85   \$293,85   \$292,97   \$293,97   \$293,																
Mag-17   99386   516,433,105   \$276,95   \$291,70   \$276,95   \$27																
Sep-17   58768   515,81,080   2269.38   5269																
0c+17   58735   518,815,881   5320,35   520,35   520,35   520,07   5320,35   520,07   520,35   520,07   520,35   520,07   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,512   520,00   520,513   520,0																
Dec-17   58792   518,379,073   5312,61   5289,79   5312,61   5312,01   5310,70   531																
Jan-18   56613   \$18,577,854   \$327,00   \$222,05   \$327,00   \$292,25   \$327,00   \$299,91   \$202,75   \$228,94   \$299,91   \$202,07   \$299,91   \$202,07   \$299,91   \$202,07   \$299,91   \$202,07   \$299,91   \$202,07   \$299,91   \$202,07   \$299,91   \$202,07   \$299,75   \$228,94   \$299,75   \$22																
Feb-18   56466   516,613,221   5294,22   5294,13   5294,22   5296,13   5294,22   5296,13   5294,22   5296,13   5294,22   5296,13   5294,22   5296,14   5300,00   5296,																
Mar-18																
Apr-18   56688   517,159,443   \$303,77   \$299.91   \$303,78   \$299.75   \$283.94   \$29																
Jun-18    56666   \$16,089,835   \$283,94   \$299,75   \$283,94   \$299,75   \$283,94   \$299,75   \$283,94   \$299,75   \$283,94   \$299,75   \$283,94   \$299,75   \$283,94   \$299,75   \$283,94   \$299,75   \$289,75   \$283,94   \$299,75   \$289,75   \$2	Apr-18	56488	\$17,159,443	\$303.77	\$303.77	\$299.91	\$303.77	\$299.91	\$303.77	\$299.91	\$303.77	\$299.91	\$303.77	\$299.91	\$303.77	\$299.91
Jul-18   56666   \$292.93   \$299.69   \$292.86   \$299.69   \$293.42   \$299.73   \$299.73   \$299.73   \$302.45   \$300.48   \$302.56   \$300.48   \$300.56   \$300.47   \$300.42																
Aug-18         56666         \$289.25         \$300.80         \$289.37         \$300.80         \$290.14         \$300.91         \$290.08         \$300.00         \$302.71         \$301.12         \$302.12         \$305.67           Oct-18         56666         \$300.44         \$303.37         \$303.77         \$303.77         \$303.76         \$323.55         \$303.88         \$323.57         \$303.86         \$304.41         \$303.65         \$304.41         \$303.65         \$304.10         \$304.62         \$306.60         \$304.67         \$300.60         \$303.88         \$323.57         \$303.86         \$304.67         \$306.62         \$306.60         \$304.67         \$306.60         \$305.77         \$305.00         \$305.79         \$306.60         \$304.47         \$306.00         \$305.79         \$306.60         \$305.79         \$306.40         \$300.67         \$304.47         \$305.87         \$306.60         \$305.99         \$306.61         \$305.74         \$306.63         \$305.74         \$306.63         \$305.74         \$306.63         \$305.74         \$306.63         \$305.74         \$306.63         \$305.74         \$306.63         \$304.47         \$306.63         \$306.47         \$306.63         \$306.47         \$306.63         \$306.47         \$306.63         \$306.47         \$306.63         \$306.42 <td></td> <td></td> <td>\$16,089,835</td> <td>\$283.94</td> <td></td>			\$16,089,835	\$283.94												
Sep-18         56666         \$300.64         \$303.57         \$301.68         \$301.51         \$301.68         \$303.66         \$303.55         \$300.64         \$303.57         \$303.68         \$304.23         \$304.23         \$304.23         \$304.23         \$304.23         \$304.29         \$304.23         \$304.23         \$304.23         \$304.23         \$304.29         \$305.60         \$304.79         \$304.64         \$305.55         \$304.23         \$304.20         \$305.60         \$304.79         \$304.64         \$305.05         \$304.20         \$305.10         \$304.62         \$305.87         \$305.87         \$305.87         \$305.87         \$305.87         \$305.87         \$305.80         \$304.47         \$305.40         \$305.70         \$305.87         \$305.87         \$305.87         \$306.87         \$306.87         \$306.87         \$304.40         \$304.47         \$304.48         \$305.44         \$305.67         \$304.40         \$290.79         \$304.45         \$292.32         \$304.72         \$304.88         \$313.62         \$304.84         \$305.67         \$300.68         \$313.62         \$304.84         \$305.68         \$300.60         \$300.73         \$300.44         \$300.73         \$304.43         \$300.71         \$300.42         \$400.44         \$300.75         \$300.47         \$300.42         \$																
Oct-18         56666         \$323,76         \$300,71         \$323,67         \$323,65         \$303,88         \$323,57         \$301,86         \$304,10         \$304,25         \$304,23         \$304,22           Nov-18         56666         \$327,17         \$305,88         \$304,67         \$306,28         \$304,82         \$306,20         \$304,79         \$304,64         \$305,05         \$304,79         \$304,67         \$304,67         \$306,28         \$304,82         \$306,28         \$304,79         \$304,44         \$305,19         \$304,67         \$304,82         \$306,59         \$306,59         \$306,59         \$306,59         \$306,68         \$305,79         \$304,43         \$305,79         \$304,88         \$313,62         \$304,70         \$313,46         \$304,74         \$313,72         \$304,88         \$313,62         \$304,67         \$302,69         \$304,67         \$306,48         \$305,74         \$302,63         \$306,91         \$302,71         \$506,60         \$301,75         \$305,86         \$317,77         \$305,86         \$317,95         \$306,41         \$317,86         \$304,13         \$307,93         \$304,43         \$307,93         \$304,43         \$307,93         \$304,43         \$307,93         \$304,43         \$307,93         \$304,43         \$307,93         \$304,43         \$304,43 <td></td>																
Dec:18   56666   S327.17   S305.80   S327.40   S305.87   S326.95   S305.99   S326.86   S305.96   S305.19   S304.41   S305.35   S304.47																
Jan-19   56666   S301,76   S304,70   S313,76   S304,70   S313,76   S304,70	Nov-18	56666			\$305.93	\$304.62	\$305.88	\$304.67	\$306.28	\$304.82	\$306.20	\$304.79	\$304.64	\$305.05	\$304.79	\$305.10
Feb-19         56666         \$290.76         \$304.40         \$290.79         \$304.45         \$292.32         \$304.72         \$292.20         \$304.66         \$306.28         \$330.63         \$306.47         \$303.73           Mar-19         56666         \$317.44         \$305.78         \$317.77         \$305.86         \$317.95         \$306.07         \$306.83         \$304.13         \$307.03         \$304.24           Apr-19         56666         \$317.98         \$305.43         \$317.86         \$305.51         \$318.25         \$306.07         \$302.85         \$306.00         \$307.92         \$303.42         \$308.38         \$307.92         \$303.42         \$308.38         \$305.64         \$307.92         \$308.48         \$307.92         \$308.48         \$307.92         \$308.48         \$307.92         \$308.46         \$305.64         \$309.80         \$305.64         \$309.89         \$306.64         \$309.35         \$308.46         \$309.55         \$308.46         \$305.64         \$309.35         \$308.46         \$309.55         \$308.71         \$306.63         \$304.47         \$306.63         \$304.47         \$306.63         \$304.47         \$306.64         \$308.48         \$307.92         \$308.46         \$305.64         \$300.55         \$308.19         \$306.64         \$309.35	Dec-18	56666			\$327.17	\$305.80	\$327.40	\$305.87	\$326.95	\$305.99	\$326.86	\$305.96	\$305.19	\$304.41	\$305.35	\$304.47
Mar-19 56666																
Apr-19 56666																
May-19         56666         \$317.98         \$305.43         \$317.86         \$305.51         \$318.25         \$305.92         \$318.09         \$305.84         \$307.92         \$303.42         \$308.15         \$303.57           Jun-19         56666         \$312.37         \$307.80         \$312.86         \$307.92         \$313.47         \$306.46         \$309.77         \$306.28         \$308.93         \$306.45         \$309.47         \$306.24         \$309.35         \$300.46         \$309.55         \$300.40         \$306.63         \$309.47         \$306.24         \$309.35         \$300.46         \$309.55         \$300.61         \$309.26         \$306.65         \$309.47         \$306.24         \$309.35         \$300.40         \$309.25         \$303.16         \$310.55         \$302.93         \$310.42         \$309.55         \$306.55         \$300.82         \$306.75         \$90.79         \$312.81         \$310.99         \$314.30         \$311.64         \$311.49         \$310.09         \$307.10         \$310.38         \$307.31         \$311.67         \$312.69         \$312.81         \$310.99         \$312.05         \$313.60         \$311.49         \$310.09         \$307.10         \$311.31         \$310.09         \$313.30         \$313.61         \$313.50         \$313.50         \$313.61         \$313.09 <td></td>																
Jun-19 56666 5312.37 \$307.80 \$312.86 \$307.92 \$313.44 \$308.38 \$313.27 \$308.28 \$308.46 \$305.46 \$305.46 \$308.71 \$305.63 \$ Jul-19 56666 5304.87 \$308.79 \$304.98 \$308.93 \$306.45 \$309.47 \$306.24 \$309.35 \$308.26 \$309.01 \$300.01 \$300.26 \$306.19 \$ Aug-19 56666 5301.00 \$309.77 \$301.28 \$309.92 \$303.16 \$310.55 \$302.93 \$310.42 \$309.55 \$306.55 \$309.26 \$306.19 \$ Aug-19 56666 5312.81 \$310.79 \$313.38 \$310.95 \$314.50 \$311.64 \$314.25 \$311.49 \$310.09 \$307.10 \$310.38 \$307.31 \$ Oct.19 56666 5336.81 \$311.87 \$337.19 \$312.05 \$336.87 \$311.27 \$336.40 \$311.65 \$310.09 \$307.10 \$310.38 \$307.31 \$ Oct.19 56666 5331.28 \$311.90 \$318.23 \$311.90 \$313.09 \$313.09 \$313.00 \$313.81 \$319.01 \$313.63 \$311.17 \$308.19 \$311.50 \$308.84 \$ Oct.19 56666 5330.28 \$313.99 \$340.65 \$314.19 \$339.97 \$314.89 \$339.66 \$314.70 \$311.17 \$308.73 \$311.00 \$308.99 \$ Jun-20 56666 530.23 \$316.00 \$302.33 \$316.00 \$302.45 \$316.21 \$305.34 \$317.06 \$304.98 \$315.76 \$312.25 \$309.27 \$313.26 \$309.27 \$ S313.50 \$313.60 \$330.30 \$317.05 \$330.46 \$317.27 \$330.88 \$318.15 \$330.99 \$317.80 \$313.33 \$310.36 \$313.74 \$310.36 \$ Oct.20 56666 5330.31 \$310.00 \$320.45 \$330.46 \$317.27 \$330.88 \$318.15 \$330.59 \$317.89 \$313.33 \$310.36 \$313.74 \$310.66 \$ Oct.20 56666 \$330.51 \$319.09 \$330.44 \$319.22 \$330.52 \$310.89 \$310.89 \$313.38 \$310.30 \$313.74 \$310.20 \$ Oct.20 56666 \$331.49 \$322.10 \$316.95 \$322.33 \$316.18 \$322.39 \$310.80 \$311.22 \$330.81 \$320.11 \$314.41 \$311.44 \$314.45 \$314.29 \$311.20 \$ Oct.20 56666 \$331.64 \$320.11 \$325.20 \$320.35 \$320.35 \$320.47 \$321.40 \$325.10 \$324.45 \$320.11 \$325.00 \$322.33 \$316.18 \$322.39 \$310.90 \$331.40 \$331.57 \$322.39 \$330.51 \$330.50 \$331.40 \$331.57 \$322.49 \$331.57 \$322.49 \$331.57 \$322.19 \$330.60 \$331.00 \$331.00 \$331.00 \$331.00 \$331.00 \$331.30 \$33																
Jul-19   56666   S304.87   S308.79   S304.98   S308.93   S306.45   S309.47   S306.24   S309.35   S309.01   S306.01   S309.26   S306.19																
Aug-19 56666 5301.00 5309.77 5301.28 5309.92 5303.16 5310.55 5302.93 5310.42 5309.55 5306.55 5309.82 5306.75 5291-19 56666 5312.81 5310.79 5313.38 5310.55 5314.50 5316.60 5314.79 5316.81 5310.09 5307.10 5310.38 5307.31 53666 5316.81 5316.87 5312.81 5310.79 5313.38 5310.55 5314.50 5314.60 5311.64 5310.09 5307.10 5310.38 5307.31 5316.00 5316.81 5316.87 5316.81 5316.90 5316.81 5318.23 5312.90 5318.31 5313.09 5319.30 5313.81 5319.01 5313.63 5311.17 5308.19 5311.50 5308.43 500.19 56666 5340.28 5313.99 5340.65 5314.19 53399.65 5314.89 5319.01 5313.63 5311.17 5308.79 5311.50 5308.43 5312.90 536666 5330.38 5310.39 5310.34 5315.24 5326.41 5315.76 5312.25 5309.27 5312.60 5308.99 5316.30 5312.30		56666														
Sep-19         56666         5312.81         \$310.79         \$313.38         \$310.95         \$314.50         \$311.64         \$314.25         \$314.49         \$310.09         \$307.10         \$310.38         \$307.31           Oct-19         56666         \$336.81         \$311.87         \$337.19         \$312.05         \$336.70         \$312.72         \$336.40         \$312.56         \$310.63         \$307.64         \$300.94         \$307.87           Nov-19         56666         \$318.23         \$311.90         \$313.09         \$313.09         \$314.81         \$319.01         \$313.63         \$311.17         \$308.19         \$311.50         \$307.67         \$307.67         \$307.67         \$311.70         \$316.60         \$307.64         \$307.67         \$307.67         \$308.99         \$314.80         \$339.66         \$314.70         \$311.71         \$308.73         \$312.06         \$308.99         \$316.60         \$330.60         \$315.24         \$326.47         \$315.98         \$326.41         \$315.76         \$312.25         \$309.27         \$313.60         \$308.99         \$316.60         \$302.35         \$316.00         \$307.44         \$317.06         \$304.49         \$316.83         \$312.25         \$309.82         \$313.16         \$312.62         \$309.54         \$317.06																
Nov-19         56666         \$318.23         \$312.90         \$318.31         \$310.90         \$319.30         \$313.81         \$319.01         \$313.63         \$311.17         \$308.19         \$311.50         \$308.43           Dec-19         56666         \$340.28         \$313.99         \$340.65         \$314.19         \$339.96         \$314.70         \$311.71         \$308.73         \$312.06         \$308.99           Jan-20         56666         \$326.29         \$315.03         \$315.24         \$326.41         \$315.98         \$326.41         \$315.76         \$312.25         \$309.92         \$312.06         \$309.94           Feb-20         56666         \$302.33         \$316.00         \$302.45         \$316.21         \$305.34         \$317.06         \$304.98         \$316.83         \$312.79         \$309.82         \$313.18         \$310.10           Mar-20         56666         \$330.03         \$317.05         \$330.46         \$317.27         \$330.98         \$316.83         \$312.79         \$309.82         \$313.18         \$310.10           Mar-20         56666         \$330.31         \$310.29         \$330.44         \$319.27         \$316.00         \$318.95         \$313.30         \$310.36         \$313.74         \$310.36         \$313.74	Sep-19	56666			\$312.81	\$310.79	\$313.38	\$310.95	\$314.50	\$311.64	\$314.25	\$311.49	\$310.09	\$307.10	\$310.38	\$307.31
Dec.19         56666         5340.28         \$313.99         \$340.65         \$314.19         \$339.97         \$314.89         \$339.66         \$314.70         \$311.71         \$308.73         \$312.05         \$308.99           Jan-20         56666         \$326.29         \$315.03         \$326.08         \$315.24         \$315.98         \$315.76         \$315.76         \$311.25         \$309.27         \$312.62         \$309.59         \$306.61         \$315.76         \$315.76         \$315.76         \$315.76         \$315.76         \$315.76         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$340.49         \$317.06         \$330.51         \$317.27         \$330.08         \$317.27         \$330.09         \$317.09         \$313.49         \$311.22         \$310.66         \$313.70         \$313.40         \$313.27         \$310.60         \$318.22 <td>Oct-19</td> <td>56666</td> <td></td> <td></td> <td>\$336.81</td> <td>\$311.87</td> <td>\$337.19</td> <td>\$312.05</td> <td>\$336.67</td> <td>\$312.72</td> <td>\$336.40</td> <td>\$312.56</td> <td>\$310.63</td> <td>\$307.64</td> <td>\$310.94</td> <td>\$307.87</td>	Oct-19	56666			\$336.81	\$311.87	\$337.19	\$312.05	\$336.67	\$312.72	\$336.40	\$312.56	\$310.63	\$307.64	\$310.94	\$307.87
Jan-20 56666 \$326.29 \$315.03 \$326.08 \$315.24 \$326.74 \$315.98 \$326.41 \$315.76 \$312.25 \$309.27 \$312.62 \$309.54 \$ Feb-20 56666 \$330.33 \$316.00 \$302.45 \$316.21 \$305.34 \$317.06 \$304.98 \$316.83 \$312.79 \$309.82 \$313.18 \$310.10 \$ Mar-20 56666 \$330.33 \$317.05 \$330.46 \$317.27 \$330.88 \$318.15 \$330.59 \$317.89 \$313.33 \$310.36 \$313.74 \$310.66 \$ Apr-20 56666 \$331.50 \$318.04 \$313.76 \$318.27 \$316.02 \$319.24 \$315.60 \$318.95 \$313.87 \$310.96 \$313.74 \$310.66 \$ Apr-20 56666 \$330.51 \$319.99 \$330.44 \$319.32 \$331.27 \$320.32 \$330.83 \$320.01 \$314.41 \$311.44 \$314.85 \$311.78 \$10.10 \$ Apr-20 56666 \$324.64 \$320.11 \$325.20 \$320.35 \$326.37 \$321.41 \$326.00 \$321.08 \$314.41 \$311.44 \$314.85 \$311.78 \$10.10 \$ Apr-20 56666 \$316.81 \$321.10 \$316.95 \$321.35 \$319.47 \$322.49 \$318.95 \$321.30 \$314.95 \$311.98 \$315.41 \$312.34 \$ Apr-20 56666 \$312.74 \$322.08 \$313.06 \$322.33 \$316.18 \$323.58 \$315.63 \$323.19 \$316.02 \$313.06 \$316.53 \$313.46 \$ Sp-20 56666 \$312.74 \$322.08 \$313.06 \$322.33 \$316.18 \$323.58 \$315.63 \$323.19 \$316.02 \$313.06 \$316.53 \$313.46 \$ Sp-20 56666 \$324.49 \$324.18 \$324.10 \$325.57 \$323.44 \$327.52 \$324.65 \$326.90 \$324.25 \$315.55 \$313.60 \$317.09 \$314.02 \$ C01-20 \$6666 \$324.98 \$322.11 \$325.05 \$322.44 \$329.99 \$325.75 \$324.69 \$325.25 \$315.65 \$313.60 \$316.05 \$314.02 \$316.02 \$313.06 \$316.33 \$315.10 \$315.14 \$315.13 \$ Apr-20 \$36666 \$324.98 \$322.18 \$324.18 \$325.25 \$324.46 \$325.25 \$324.65 \$326.90 \$324.25 \$315.65 \$313.60 \$316.05 \$314.07 \$316.02 \$313.06 \$316.53 \$313.06 \$316.53 \$313.06 \$316.53 \$313.06 \$316.53 \$313.06 \$316.53 \$313.06 \$316.53 \$313.06 \$316.53 \$313.06 \$316.53 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00 \$314.02 \$315.00																
Feb-20         56666         \$302.33         \$316.00         \$302.45         \$316.21         \$305.34         \$317.06         \$304.98         \$316.83         \$312.79         \$309.82         \$313.18         \$310.10           Mar-20         56666         \$330.03         \$317.05         \$330.46         \$317.27         \$330.98         \$318.18         \$310.36         \$313.74         \$310.06         \$313.50         \$313.50         \$318.27         \$310.02         \$319.24         \$315.60         \$318.95         \$313.30         \$310.36         \$313.74         \$310.06         \$318.27         \$310.02         \$318.24         \$315.60         \$318.50         \$318.37         \$310.36         \$313.74         \$310.06         \$318.27         \$310.02         \$318.27         \$320.02         \$330.83         \$320.01         \$314.41         \$311.44         \$314.85         \$311.78         \$310.20         \$314.41         \$311.44         \$314.85         \$311.78         \$310.20         \$330.83         \$320.01         \$314.41         \$311.44         \$314.85         \$311.78         \$310.20         \$330.83         \$320.01         \$314.41         \$311.44         \$314.85         \$311.78         \$312.40         \$315.60         \$321.40         \$322.40         \$322.43         \$322.40         \$322.43 <td></td>																
Mar-20 56666 \$330.03 \$317.05 \$330.46 \$317.27 \$330.98 \$318.15 \$330.59 \$317.89 \$313.33 \$310.36 \$313.74 \$310.66 \$Apr-20 56666 \$331.50 \$318.04 \$313.76 \$318.27 \$316.20 \$319.24 \$315.60 \$318.95 \$313.87 \$310.90 \$314.29 \$311.22 \$488.20 \$320.32 \$330.83 \$320.01 \$314.41 \$311.44 \$314.48 \$314.85 \$311.27 \$488.20 \$320.32 \$330.83 \$320.01 \$314.41 \$311.44 \$314.48 \$314.85 \$311.72 \$488.20 \$320.32 \$320.32 \$320.83 \$320.00 \$321.08 \$314.95 \$311.98 \$315.41 \$312.34 \$310.20 \$320.32 \$320.33 \$32																
Apr-20         56666         \$313.50         \$318.04         \$313.76         \$318.27         \$316.02         \$319.24         \$315.60         \$318.95         \$313.87         \$310.90         \$314.29         \$311.22           May-20         56666         \$330.51         \$319.99         \$330.44         \$319.32         \$331.27         \$320.32         \$330.83         \$320.01         \$314.41         \$311.44         \$314.85         \$311.78           Jul-20         56666         \$324.64         \$320.11         \$325.20         \$321.35         \$321.41         \$326.00         \$321.08         \$314.95         \$311.98         \$315.61         \$312.34           Jul-20         56666         \$316.81         \$321.10         \$325.25         \$321.35         \$319.47         \$322.49         \$318.95         \$321.38         \$311.98         \$315.61         \$315.31         \$315.61         \$312.34           Aug-20         56666         \$312.74         \$322.08         \$313.06         \$322.33         \$315.68         \$323.19         \$316.02         \$313.06         \$315.69         \$322.33         \$315.61         \$322.39         \$316.81         \$322.39         \$315.60         \$323.19         \$316.02         \$313.06         \$315.61         \$313.46         \$322.31							70000		******	***************************************	***************************************	********	\$3.2.77	*******		\$5.0.10
May-20         56666         533.51         \$319.09         \$330.44         \$319.32         \$331.27         \$320.32         \$330.83         \$320.01         \$314.41         \$311.44         \$314.85         \$311.78           Jun-20         56666         5324.64         \$320.11         \$325.20         \$320.35         \$324.40         \$321.10         \$325.20         \$320.35         \$324.40         \$321.08         \$311.74         \$311.98         \$315.41         \$312.40         \$315.41         \$312.40         \$315.41         \$312.74         \$312.74         \$322.53         \$320.35         \$324.49         \$321.08         \$314.95         \$311.98         \$311.98         \$315.53         \$315.63         \$321.00         \$324.24         \$318.89         \$323.19         \$316.02         \$313.06         \$315.63         \$322.33         \$315.63         \$323.19         \$316.02         \$313.06         \$315.63         \$322.33         \$315.63         \$323.19         \$316.02         \$313.06         \$315.63         \$322.33         \$315.63         \$323.19         \$316.02         \$313.06         \$315.63         \$322.33         \$315.63         \$323.19         \$316.02         \$313.06         \$315.63         \$314.02         \$316.02         \$313.06         \$315.53         \$314.02         \$314.02 <td></td>																
Jun-20         56666         5324.64         \$320.11         \$325.20         \$320.35         \$326.47         \$321.41         \$326.00         \$321.08         \$314.95         \$311.98         \$315.41         \$312.24           Jul-20         56666         \$316.81         \$321.10         \$316.95         \$322.33         \$316.18         \$322.95         \$318.95         \$322.13         \$315.48         \$312.52         \$315.97         \$312.90           Aug-20         56666         \$312.74         \$322.08         \$313.06         \$312.32         \$316.18         \$322.58         \$315.63         \$322.19         \$316.05         \$313.06         \$315.53         \$313.50         \$312.24           Sep-20         56666         \$324.98         \$322.10         \$325.57         \$323.34         \$327.52         \$324.66         \$326.99         \$324.25         \$316.55         \$313.60         \$317.09         \$314.02           Oct-20         56666         \$349.87         \$324.18         \$352.55         \$324.43         \$349.09         \$325.75         \$349.08         \$325.31         \$317.09         \$314.14         \$317.65         \$317.65         \$314.57           Nov-20         56666         \$330.33         \$325.21         \$330.59         \$325.46																
Jul-20         56666         \$316.81         \$321.10         \$316.95         \$321.35         \$319.47         \$322.49         \$318.95         \$322.13         \$315.48         \$312.52         \$315.97         \$312.90           Aug-20         56666         \$312.74         \$322.08         \$313.06         \$322.33         \$316.81         \$323.89         \$313.06         \$313.06         \$313.46         \$313.46         \$313.06         \$313.06         \$313.46         \$312.90         \$314.67         \$313.06         \$313.06         \$313.46         \$313.46         \$322.31         \$315.48         \$312.92         \$313.06         \$313.46         \$313.46         \$312.90         \$314.67         \$313.06         \$313.06         \$322.31         \$322.49         \$316.02         \$313.06         \$313.06         \$313.46         \$322.49         \$322.49         \$316.02         \$313.06         \$313.06         \$313.46         \$322.49         \$322.49         \$322.49         \$322.49         \$322.49         \$316.02         \$313.06         \$313.06         \$313.46         \$313.06         \$313.06         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02         \$314.02 <td></td>																
Aug-20         56666         \$312.74         \$322.08         \$313.06         \$322.33         \$316.18         \$323.58         \$315.63         \$323.19         \$316.02         \$313.06         \$316.53         \$313.46           \$ep-20         \$6666         \$324.98         \$322.10         \$325.57         \$322.38         \$327.52         \$324.69         \$324.25         \$316.55         \$313.60         \$317.09         \$314.02           \$04-20         \$6666         \$349.87         \$324.18         \$350.25         \$324.43         \$349.69         \$325.75         \$349.08         \$325.31         \$317.09         \$314.14         \$317.60         \$314.67         \$314.67         \$314.67         \$314.67         \$316.02         \$314.67         \$318.21         \$315.03         \$315.60         \$317.09         \$314.02         \$315.03         \$315.03         \$315.03         \$315.03         \$315.03         \$315.03         \$315.03         \$315.03																
Sep-20         56666         \$324.98         \$323.10         \$325.57         \$323.34         \$327.52         \$324.66         \$326.94         \$324.25         \$316.55         \$313.60         \$317.09         \$314.02           Oct-20         56666         \$349.87         \$324.18         \$350.25         \$324.43         \$349.69         \$325.75         \$349.08         \$325.31         \$317.09         \$314.14         \$317.65         \$314.57           Nov-20         56666         \$330.53         \$325.21         \$330.59         \$325.46         \$332.32         \$326.36         \$317.62         \$314.67         \$318.21         \$315.13																
Oct-20         56666         \$349.87         \$324.18         \$350.25         \$324.43         \$349.69         \$325.75         \$349.08         \$325.31         \$317.09         \$314.14         \$317.65         \$314.57           Nov-20         56666         \$330.53         \$325.21         \$330.59         \$325.46         \$332.32         \$326.83         \$331.67         \$326.36         \$317.62         \$314.67         \$318.21         \$315.13	-															
		56666								\$325.75						\$314.57
Dec-20 56666 \$353.39 \$326.30 \$353.74 \$326.55 \$353.00 \$327.92 \$352.31 \$327.42 \$318.16 \$315.21 \$318.77 \$315.69																
	Dec-20	56666			\$353.39	\$326.30	\$353.74	\$326.55	\$353.00	\$327.92	\$352.31	\$327.42	\$318.16	\$315.21	\$318.77	\$315.69

 Utilization Trend
 3.46%
 3.49%
 3.66%
 3.60%
 2.04%
 2.10%

 RMSE (root mean square error)
 18.09
 18.07
 18.07
 18.19
 18.19

MEDICAL UTILIZATION TREND CALCULATION

Utilization Trend Calculation - Facility Claims - 36 Month Time Series

	Utilization Trend Calculation - Facility Claims - 36 Month Time Series  Adjusted Claims - Holt-Winters' Multiplicative Multiplicative Holt-Winters' Additive Additive Damped Trend Non-Seasonal Smoothing														
		Adjusted Claims - Normalized for	Adjusted		-									Smoot	
Month	Membership	Contract Changes	PMPM	Monthly PMPM	Rolling 12 PMPM										
Jul-15	64832	\$18,393,141	\$283.70	\$283.70		\$283.70		\$283.70		\$283.70		\$283.70		\$283.70	
Aug-15	64518	\$16,982,694	\$263.22	\$263.22		\$263.22		\$263.22		\$263.22		\$263.22		\$263.22	
Sep-15	64137	\$19,296,757	\$300.87	\$300.87		\$300.87		\$300.87		\$300.87		\$300.87		\$300.87	
Oct-15	64092	\$19,040,886	\$297.09	\$297.09		\$297.09		\$297.09		\$297.09		\$297.09		\$297.09	
Nov-15 Dec-15	64102 64301	\$18,859,632	\$294.21	\$294.21		\$294.21 \$298.33		\$294.21		\$294.21		\$294.21		\$294.21 \$298.33	
Dec-15 Jan-16	64301 60146	\$19,182,883 \$16,527,767	\$298.33 \$274.79	\$298.33 \$274.79											
Feb-16	60017	\$16,633,588	\$277.15	\$277.15		\$277.15		\$277.15		\$277.15		\$277.15		\$277.15	
Mar-16	60007	\$17,887,614	\$298.09	\$298.09		\$298.09		\$298.09		\$298.09		\$298.09		\$298.09	
Apr-16	59837	\$16,537,324	\$276.37	\$276.37		\$276.37		\$276.37		\$276.37		\$276.37		\$276.37	
May-16	59314	\$16,362,170	\$275.86	\$275.86		\$275.86		\$275.86		\$275.86		\$275.86		\$275.86	
Jun-16	59091	\$18,177,397	\$307.62	\$307.62	\$287.32	\$307.62	\$287.32	\$307.62	\$287.32	\$307.62	\$287.32	\$307.62	\$287.32	\$307.62	\$287.32
Jul-16	58874	\$16,189,550	\$274.99	\$274.99	\$286.66	\$274.99	\$286.66	\$274.99	\$286.66	\$274.99	\$286.66	\$274.99	\$286.66	\$274.99	\$286.66
Aug-16	58734 58673	\$17,160,964	\$292.18	\$292.18	\$289.16	\$292.18	\$289.16	\$292.18	\$289.16	\$292.18	\$289.16	\$292.18	\$289.16	\$292.18	\$289.16
Sep-16 Oct-16	58843	\$18,105,382 \$17,199,334	\$308.58 \$292.29	\$308.58 \$292.29	\$289.70 \$289.25										
Nov-16	58834	\$17,878,112	\$303.87	\$303.87	\$290.01	\$303.87	\$290.01	\$303.87	\$290.01	\$303.87	\$290.01	\$303.87	\$290.01	\$303.87	\$290.01
Dec-16	58349	\$18,445,455	\$316.12	\$316.12	\$291.40	\$316.12	\$291.40	\$316.12	\$291.40	\$316.12	\$291.40	\$316.12	\$291.40	\$316.12	\$291.40
Jan-17	59709	\$17,254,190	\$288.97	\$288.97	\$292.60	\$288.97	\$292.60	\$288.97	\$292.60	\$288.97	\$292.60	\$288.97	\$292.60	\$288.97	\$292.60
Feb-17	59577	\$15,209,233	\$255.29	\$255.29	\$290.78	\$255.29	\$290.78	\$255.29	\$290.78	\$255.29	\$290.78	\$255.29	\$290.78	\$255.29	\$290.78
Mar-17	59382	\$17,847,681	\$300.56	\$300.56	\$290.98	\$300.56	\$290.98	\$300.56	\$290.98	\$300.56	\$290.98	\$300.56	\$290.98	\$300.56	\$290.98
Apr-17	59297	\$15,358,313	\$259.01	\$259.01	\$289.54	\$259.01	\$289.54	\$259.01	\$289.54	\$259.01	\$289.54	\$259.01	\$289.54	\$259.01	\$289.54
May-17	59362	\$18,069,818	\$304.40	\$304.40	\$291.93	\$304.40	\$291.93	\$304.40	\$291.93	\$304.40	\$291.93	\$304.40	\$291.93	\$304.40	\$291.93
Jun-17 Jul-17	59379 59380	\$17,889,216 \$17,448,999	\$301.27 \$293.85	\$301.27 \$293.85	\$291.40 \$292.97										
Jul-17 Aug-17	59336	\$16,433,105	\$276.95	\$276.95	\$292.97	\$293.63	\$292.97	\$276.95	\$292.97	\$293.65	\$292.97	\$276.95	\$292.97	\$293.83	\$292.97
Sep-17	58768	\$15,831,080	\$269.38	\$269.38	\$288.45	\$269.38	\$288.45	\$269.38	\$288.45	\$269.38	\$288.45	\$269.38	\$288.45	\$269.38	\$288.45
Oct-17	58735	\$18,815,881	\$320.35	\$320.35	\$290.77	\$320.35	\$290.77	\$320.35	\$290.77	\$320.35	\$290.77	\$320.35	\$290.77	\$320.35	\$290.77
Nov-17	58865	\$17,383,731	\$295.32	\$295.32	\$290.07	\$295.32	\$290.07	\$295.32	\$290.07	\$295.32	\$290.07	\$295.32	\$290.07	\$295.32	\$290.07
Dec-17	58792	\$18,379,073	\$312.61	\$312.61	\$289.79	\$312.61	\$289.79	\$312.61	\$289.79	\$312.61	\$289.79	\$312.61	\$289.79	\$312.61	\$289.79
Jan-18	56813	\$18,577,854	\$327.00	\$327.00	\$292.85	\$327.00	\$292.85	\$327.00	\$292.85	\$327.00	\$292.85	\$327.00	\$292.85	\$327.00	\$292.85
Feb-18	56466 56313	\$16,613,221	\$294.22	\$294.22	\$296.13	\$294.22	\$296.13	\$294.22	\$296.13	\$294.22	\$296.13	\$294.22	\$296.13	\$294.22	\$296.13
Mar-18 Apr-18	56488	\$16,944,586 \$17,159,443	\$300.90 \$303.77	\$300.90 \$303.77	\$296.14 \$299.91	\$300.90 \$303.77	\$296.14	\$300.90	\$296.14 \$299.91	\$300.90	\$296.14 \$299.91	\$300.90	\$296.14	\$300.90	\$296.14 \$299.91
May-18	56688	\$18,140,798	\$303.77	\$303.77	\$301.16	\$303.77	\$299.91 \$301.16	\$303.77 \$320.01	\$301.16	\$303.77 \$320.01	\$301.16	\$303.77 \$320.01	\$299.91 \$301.16	\$303.77 \$320.01	\$301.16
Jun-18	56666	\$16,089,835	\$283.94	\$283.94	\$299.75	\$283.94	\$299.75	\$283.94	\$299.75	\$283.94	\$299.75	\$283.94	\$299.75	\$283.94	\$299.75
Jul-18	56666		*	\$295.75	\$299.93	\$295.71	\$299.92	\$295.86	\$299.93	\$295.82	\$299.93	\$302.67	\$300.49	\$302.76	\$300.50
Aug-18	56666			\$284.79	\$300.66	\$284.75	\$300.65	\$284.96	\$300.68	\$284.91	\$300.68	\$303.64	\$302.78	\$303.73	\$302.80
Sep-18	56666			\$306.01	\$303.78	\$305.96	\$303.77	\$306.36	\$303.84	\$306.30	\$303.82	\$304.61	\$305.80	\$304.71	\$305.82
Oct-18	56666			\$317.56	\$303.50	\$317.50	\$303.49	\$316.58	\$303.47	\$316.52	\$303.46	\$305.58	\$304.53	\$305.68	\$304.56
Nov-18 Dec-18	56666 56666			\$311.70	\$304.89	\$311.63	\$304.87	\$311.26	\$304.82	\$311.19	\$304.80	\$306.55	\$305.49	\$306.66	\$305.53
Jan-19	56666			\$322.97 \$310.15	\$305.73 \$304.32	\$322.89 \$310.05	\$305.70 \$304.28	\$321.68 \$308.94	\$305.56 \$304.05	\$321.60 \$308.85	\$305.53 \$304.01	\$307.51 \$308.48	\$305.04 \$303.49	\$307.63 \$308.61	\$305.10 \$303.56
Feb-19	56666			\$293.99	\$304.32	\$293.90	\$304.25	\$294.64	\$304.03	\$294.53	\$304.01	\$309.44	\$303.49	\$309.59	\$303.30
Mar-19	56666			\$317.83	\$305.71	\$317.71	\$305.65	\$317.20	\$305.43	\$317.09	\$305.38	\$310.40	\$305.55	\$310.56	\$305.64
Apr-19	56666			\$298.80	\$305.29	\$298.68	\$305.23	\$299.15	\$305.05	\$299.03	\$304.98	\$311.36	\$306.18	\$311.54	\$306.29
May-19	56666			\$314.49	\$304.83	\$314.34	\$304.76	\$313.33	\$304.49	\$313.19	\$304.41	\$312.32	\$305.54	\$312.51	\$305.66
Jun-19	56666			\$319.47	\$307.79	\$319.31	\$307.70	\$319.30	\$307.44	\$319.15	\$307.35	\$313.28	\$307.99	\$313.49	\$308.12
Jul-19	56666			\$308.32	\$308.84	\$308.14	\$308.74	\$308.39	\$308.48	\$308.20	\$308.38	\$314.24	\$308.95	\$314.46	\$309.10
Aug-19	56666			\$296.85	\$309.85	\$296.66	\$309.73	\$297.49	\$309.53	\$297.28	\$309.41	\$315.20	\$309.91	\$315.44	\$310.07
Sep-19 Oct-19	56666 56666			\$318.92 \$330.92	\$310.92 \$312.03	\$318.70	\$310.79 \$311.89	\$318.88	\$310.57 \$311.61	\$318.66 \$328.87	\$310.44 \$311.47	\$316.16 \$317.11	\$310.88 \$311.84	\$316.41	\$311.05 \$312.02
Nov-19	56666					\$330.66	\$311.89 \$312.96	\$329.11	\$311.61 \$312.66	\$328.87	*******		\$311.84 \$312.80	\$317.39	\$312.02 \$313.00
Dec-19	56666			\$324.77 \$336.46	\$313.12 \$314.25	\$324.50 \$336.16	\$312.96	\$323.79 \$334.21	\$312.66	\$323.53	\$312.50 \$313.53	\$318.07 \$319.02	\$312.80	\$318.36 \$319.34	\$313.00
Jan-20	56666			\$336.46	\$314.25	\$336.16	\$314.07	\$334.21	\$313.70	\$333.93	\$313.53 \$314.55	\$319.02	\$313.76	\$319.34	\$313.98 \$314.95
Feb-20	56666			\$306.18	\$315.32	\$305.87	\$316.12	\$321.47	\$314.75	\$306.83	\$314.55	\$319.98	\$314.72	\$320.31	\$314.93
Mar-20	56666			\$330.96	\$317.43	\$305.67	\$316.12	\$307.16	\$316.83	\$329.38	\$316.60	\$320.93	\$316.63	\$321.29	\$316.90
Apr-20	56666			\$311.11	\$317.45	\$310.74	\$317.20	\$311.68	\$317.88	\$311.30	\$317.62	\$321.88	\$317.59	\$322.20	\$317.88
May-20	56666			\$311.11	\$319.54	\$310.74	\$319.26	\$311.00	\$317.00	\$311.30	\$317.62	\$322.63	\$317.59	\$323.24	\$317.86
Jun-20	56666			\$332.53	\$320.62	\$332.09	\$320.32	\$331.83	\$319.97	\$331.40	\$319.67	\$324.73	\$319.49	\$325.19	\$319.83
Jul-20	56666			\$320.89	\$321.67	\$320.42	\$320.32	\$320.91	\$321.01	\$320.44	\$320.69	\$325.67	\$320.45	\$326.17	\$320.80
Aug-20	56666			\$308.91	\$322.68	\$308.43	\$322.32	\$310.01	\$322.05	\$309.51	\$320.07	\$326.62	\$321.40	\$327.14	\$321.78
Sep-20	56666			\$331.83	\$323.75	\$331.29	\$323.37	\$331.41	\$323.10	\$330.88	\$322.72	\$327.57	\$322.35	\$328.12	\$322.75
Oct-20	56666			\$344.27	\$324.86	\$343.67	\$324.46	\$341.63	\$324.14	\$341.07	\$323.74	\$328.51	\$323.30	\$329.09	\$323.73
Nov-20	56666			\$337.83	\$325.95	\$337.21	\$325.52	\$336.31	\$325.18	\$335.72	\$324.76	\$329.45	\$324.25	\$330.07	\$324.70
Dec-20	56666			\$349.95	\$327.08	\$349.27	\$326.61	\$346.73	\$326.23	\$346.10	\$325.77	\$330.40	\$325.20	\$331.04	\$325.68
		Utilization Trend			3.56%		3.50%		3.45%		3.39%		3.32%		3.38%
		RMSE (root mean squa	are error)		20.44		20.44		20.34		20.35		17.03		17.03

MEDICAL UTILIZATION TREND CALCULATION

Utilization Trend Calculation - Facility Claims - 24 Month Time Series

				Holt-Winters' N		ion Trend Calcu Multiplio		ility Claims - 24 Holt-Winters		e Series Addit	ive	Damped Trend	Non-Seasonal	Smoot	hina
		Adjusted Claims - Normalized for	Adjusted		Rolling 12		Rolling 12		Rolling 12		Rolling 12	1	Rolling 12	1	Rolling 12
Month	Membership	Contract Changes	PMPM	Monthly PMPM	PMPM	Monthly PMPM	PMPM	Monthly PMPM	PMPM	Monthly PMPM	PMPM	Monthly PMPM	PMPM	Monthly PMPM	PMPM
Jul-16	58874	\$16,189,550	\$274.99	\$274.99		\$274.99		\$274.99		\$274.99		\$274.99		\$274.99	
Aug-16	58734	\$17,160,964	\$292.18	\$292.18		\$292.18		\$292.18		\$292.18		\$292.18		\$292.18	
Sep-16	58673	\$18,105,382	\$308.58	\$308.58		\$308.58		\$308.58		\$308.58		\$308.58		\$308.58	
Oct-16	58843	\$17,199,334	\$292.29	\$292.29		\$292.29		\$292.29		\$292.29		\$292.29		\$292.29	
Nov-16	58834	\$17,878,112	\$303.87	\$303.87		\$303.87		\$303.87		\$303.87		\$303.87		\$303.87	
Dec-16	58349	\$18,445,455	\$316.12	\$316.12		\$316.12		\$316.12		\$316.12		\$316.12		\$316.12	
Jan-17	59709	\$17,254,190	\$288.97	\$288.97		\$288.97		\$288.97		\$288.97		\$288.97		\$288.97	
Feb-17	59577	\$15,209,233	\$255.29	\$255.29		\$255.29		\$255.29		\$255.29		\$255.29		\$255.29	
Mar-17	59382	\$17,847,681	\$300.56	\$300.56		\$300.56		\$300.56		\$300.56		\$300.56		\$300.56	
Apr-17 May-17	59297 59362	\$15,358,313	\$259.01	\$259.01		\$259.01		\$259.01		\$259.01		\$259.01		\$259.01	
May-17 Jun-17	59362	\$18,069,818 \$17,889,216	\$304.40 \$301.27	\$304.40 \$301.27	\$291.40	\$304.40 \$301.27	\$291.40	\$304.40 \$301.27	\$291.40	\$304.40 \$301.27	\$291.40	\$304.40 \$301.27	\$291.65	\$304.40 \$301.27	\$291.65
Jul-17	59380	\$17,448,999	\$293.85	\$293.85	\$291.40	\$293.85	\$291.40	\$293.85	\$291.40	\$293.85	\$291.40	\$293.85	\$293.29	\$293.85	\$291.03
Aug-17	59336	\$16,433,105	\$276.95	\$276.95	\$291.70	\$276.95	\$291.70	\$276.95	\$291.70	\$276.95	\$291.70	\$276.95	\$292.08	\$276.95	\$292.08
Sep-17	58768	\$15,831,080	\$269.38	\$269.38	\$288.45	\$269.38	\$288.45	\$269.38	\$288.45	\$269.38	\$288.45	\$269.38	\$288.79	\$269.38	\$288.79
Oct-17	58735	\$18,815,881	\$320.35	\$320.35	\$290.77	\$320.35	\$290.77	\$320.35	\$290.77	\$320.35	\$290.77	\$320.35	\$291.05	\$320.35	\$291.05
Nov-17	58865	\$17,383,731	\$295.32	\$295.32	\$290.07	\$295.32	\$290.07	\$295.32	\$290.07	\$295.32	\$290.07	\$295.32	\$290.26	\$295.32	\$290.26
Dec-17	58792	\$18,379,073	\$312.61	\$312.61	\$289.79	\$312.61	\$289.79	\$312.61	\$289.79	\$312.61	\$289.79	\$312.61	\$289.75	\$312.61	\$289.75
Jan-18	56813	\$18,577,854	\$327.00	\$327.00	\$292.85	\$327.00	\$292.85	\$327.00	\$292.85	\$327.00	\$292.85	\$327.00	\$292.95	\$327.00	\$292.95
Feb-18	56466	\$16,613,221	\$294.22	\$294.22	\$296.13	\$294.22	\$296.13	\$294.22	\$296.13	\$294.22	\$296.13	\$294.22	\$296.24	\$294.22	\$296.24
Mar-18	56313	\$16,944,586	\$300.90	\$300.90	\$296.14	\$300.90	\$296.14	\$300.90	\$296.14	\$300.90	\$296.14	\$300.90	\$296.26	\$300.90	\$296.26
Apr-18	56488	\$17,159,443	\$303.77	\$303.77	\$299.91	\$303.77	\$299.91	\$303.77	\$299.91	\$303.77	\$299.91	\$303.77	\$300.04	\$303.77	\$300.04
May-18	56688	\$18,140,798	\$320.01	\$320.01	\$301.16	\$320.01	\$301.16	\$320.01	\$301.16	\$320.01	\$301.16	\$320.01	\$301.35	\$320.01	\$301.35
Jun-18	56666	\$16,089,835	\$283.94	\$283.94	\$299.75	\$283.94	\$299.75	\$283.94	\$299.75	\$283.94	\$299.75	\$283.94	\$299.89	\$283.94	\$299.89
Jul-18	56666			\$281.52	\$298.76	\$278.09	\$298.48	\$278.30	\$298.49	\$278.31	\$298.49	\$309.65	\$301.21	\$309.69	\$301.21
Aug-18	56666			\$292.56	\$300.13	\$295.45	\$300.08	\$295.46	\$300.10	\$295.47	\$300.10	\$311.01	\$304.04	\$311.06	\$304.04
Sep-18	56666			\$304.81	\$303.15	\$312.01	\$303.70	\$311.84	\$303.70	\$311.84	\$303.71	\$312.36	\$307.59	\$312.43	\$307.60
Oct-18	56666			\$300.92	\$301.49	\$295.60	\$301.60	\$295.62	\$301.60	\$295.63	\$301.61	\$313.71	\$307.04	\$313.80	\$307.06
Nov-18 Dec-18	56666			\$305.75	\$302.38	\$307.28	\$302.61	\$307.17	\$302.61	\$307.17	\$302.61	\$315.06	\$308.67	\$315.17	\$308.70
Jan-19	56666 56666			\$319.12 \$299.27	\$302.89 \$300.57	\$319.67 \$292.25	\$303.17 \$300.27	\$319.43 \$292.32	\$303.15 \$300.25	\$319.42 \$292.32	\$303.15 \$300.25	\$316.41 \$317.76	\$308.99 \$308.17	\$316.53 \$317.90	\$309.03 \$308.23
Feb-19	56666			\$265.14	\$298.14	\$258.19	\$297.26	\$258.64	\$297.28	\$258.63	\$297.28	\$317.76	\$310.23	\$317.90	\$310.30
Mar-19	56666			\$303.62	\$298.37	\$303.93	\$297.52	\$303.87	\$297.53	\$303.86	\$297.53	\$320.45	\$310.23	\$320.64	\$310.30
Apr-19	56666			\$269.72	\$295.53	\$261.96	\$294.03	\$262.37	\$294.08	\$262.36	\$294.08	\$321.80	\$313.33	\$322.01	\$313.43
May-19	56666			\$310.00	\$294.70	\$307.83	\$293.02	\$307.74	\$293.06	\$307.72	\$293.06	\$323.14	\$313.56	\$323.38	\$313.68
Jun-19	56666			\$300.81	\$296.10	\$304.63	\$294.74	\$304.58	\$294.78	\$304.55	\$294.77	\$324.48	\$316.99	\$324.74	\$317.13
Jul-19	56666			\$281.56	\$296.11	\$278.09	\$294.74	\$278.34	\$294.78	\$278.31	\$294.77	\$325.82	\$318.35	\$326.11	\$318.51
Aug-19	56666			\$292.59	\$296.11	\$295.45	\$294.74	\$295.50	\$294.79	\$295.47	\$294.77	\$327.16	\$319.70	\$327.48	\$319.89
Sep-19	56666			\$304.85	\$296.11	\$312.01	\$294.74	\$311.88	\$294.79	\$311.84	\$294.77	\$328.50	\$321.06	\$328.85	\$321.27
Oct-19	56666			\$300.96	\$296.12	\$295.60	\$294.74	\$295.66	\$294.79	\$295.63	\$294.77	\$329.83	\$322.42	\$330.22	\$322.65
Nov-19	56666			\$305.79	\$296.12	\$307.28	\$294.74	\$307.21	\$294.80	\$307.17	\$294.77	\$331.17	\$323.78	\$331.58	\$324.04
Dec-19	56666			\$319.16	\$296.12	\$319.67	\$294.74	\$319.47	\$294.80	\$319.42	\$294.77	\$332.50	\$325.15	\$332.95	\$325.43
Jan-20	56666			\$299.31	\$296.13	\$292.25	\$294.74	\$292.36	\$294.80	\$292.32	\$294.77	\$333.83	\$326.49	\$334.32	\$326.80
Feb-20	56666			\$265.18	\$296.13	\$258.19	\$294.74	\$258.68	\$294.81	\$258.63	\$294.77	\$335.16	\$327.83	\$335.69	\$328.17
Mar-20	56666			\$303.66	\$296.13	\$303.93	\$294.74	\$303.91	\$294.81	\$303.86	\$294.77	\$336.49	\$329.16	\$337.06	\$329.53
Apr-20	56666			\$269.76	\$296.14	\$261.96	\$294.74	\$262.41	\$294.81	\$262.36	\$294.77	\$337.82	\$330.49	\$338.43	\$330.90
May-20 Jun-20	56666 56666			\$310.04	\$296.14	\$307.83	\$294.74	\$307.78	\$294.82	\$307.72	\$294.77	\$339.15	\$331.83	\$339.79	\$332.27
Jun-20 Jul-20	56666			\$300.85 \$281.60	\$296.14 \$296.15	\$304.63 \$278.09	\$294.74 \$294.74	\$304.62 \$278.38	\$294.82 \$294.82	\$304.55 \$278.31	\$294.77 \$294.77	\$340.47 \$341.79	\$333.16 \$334.49	\$341.16 \$342.53	\$333.64 \$335.01
Aug-20	56666			\$292.63	\$296.15	\$278.09	\$294.74	\$276.36	\$294.82	\$276.31	\$294.77	\$341.79	\$335.82	\$342.53	\$336.37
Sep-20	56666			\$304.89	\$296.15	\$312.01	\$294.74	\$311.92	\$294.83	\$311.84	\$294.77	\$343.12	\$337.15	\$345.27	\$337.74
Oct-20	56666			\$304.69	\$296.15	\$295.60	\$294.74	\$295.70	\$294.83	\$295.63	\$294.77	\$344.44	\$338.48		\$337.74
	56666													\$346.63	
Nov-20 Dec-20	56666			\$305.83	\$296.16	\$307.28	\$294.74	\$307.25	\$294.84	\$307.17	\$294.77	\$347.08	\$339.80	\$348.00	\$340.48
Dec-20	30000			\$319.20	\$296.16	\$319.67	\$294.74	\$319.51	\$294.84	\$319.42	\$294.77	\$348.39	\$341.13	\$349.37	\$341.85
		Utilization Trend			-0.48%		-0.67%		-0.66%		-0.67%		5.30%		5.39%
		RMSE (root mean squa	are error)		26.57		26.57		26.58		26.58		20.05		20.05
		IVADE (TOOL ITIEALI SQUA	are error)		20.37		20.37		20.30		20.30		20.03		20.03

MEDICAL UTILIZATION TREND CALCULATION

Utilization Trend Calculation - Professional Claims - 48 Month Time Series

		Adimeted Claims		Holt-Winters' N		Trend Calculat Multipli		sional Claims - 4 Holt-Winters		me Series Addit	ive	Damped Trend	Non-Seasonal	Smoot	hing
Month	Membership	Adjusted Claims - Normalized for Contract Changes	Adjusted PMPM	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12	Monthly PMPM	Rolling 12
Jul-14	68855	\$8,279,746	\$120.25	\$120.25	PMPM	\$120.25	PMPM	\$120.25	PMPM	\$120.25	PMPM	\$120.25	PMPM	\$120.25	PMPM
Aug-14	68711	\$7,780,706	\$113.24	\$113.24		\$113.24		\$113.24		\$113.24		\$113.24		\$113.24	
Sep-14	68611	\$8,762,648	\$127.71	\$127.71		\$127.71		\$127.71		\$127.71		\$127.71		\$127.71	
Oct-14 Nov-14	66404 66484	\$9,443,602 \$7,888,866	\$142.21	\$142.21		\$142.21		\$142.21		\$142.21		\$142.21		\$142.21	
Dec-14	66505	\$9,051,613	\$118.66 \$136.10	\$118.66 \$136.10		\$118.66 \$136.10		\$118.66 \$136.10		\$118.66 \$136.10		\$118.66 \$136.10		\$118.66 \$136.10	
Jan-15	65209	\$7,829,144	\$120.06	\$120.06		\$120.06		\$120.06		\$120.06		\$120.06		\$120.06	
Feb-15	65322	\$7,164,155	\$109.67	\$109.67		\$109.67		\$109.67		\$109.67		\$109.67		\$109.67	
Mar-15 Apr-15	65179 64721	\$8,484,918 \$8,250,506	\$130.18 \$127.48	\$130.18 \$127.48		\$130.18 \$127.48		\$130.18 \$127.48		\$130.18 \$127.48		\$130.18 \$127.48		\$130.18 \$127.48	
May-15	64597	\$7,882,778	\$122.03	\$127.46		\$127.46		\$127.46		\$127.46		\$127.46		\$127.48	
Jun-15	65121	\$8,161,161	\$125.32	\$125.32	\$124.39	\$125.32	\$124.39	\$125.32	\$124.39	\$125.32	\$124.39	\$125.32	\$124.39	\$125.32	\$124.39
Jul-15	64832	\$8,067,435	\$124.44	\$124.44	\$124.75	\$124.44	\$124.75	\$124.44	\$124.75	\$124.44	\$124.75	\$124.44	\$124.75	\$124.44	\$124.75
Aug-15 Sep-15	64518 64137	\$7,578,935 \$8,067,342	\$117.47 \$125.78	\$117.47 \$125.78	\$125.16 \$124.99	\$117.47 \$125.78	\$125.16 \$124.99	\$117.47 \$125.78	\$125.16 \$124.99	\$117.47 \$125.78	\$125.16 \$124.99	\$117.47 \$125.78	\$125.16 \$124.99	\$117.47 \$125.78	\$125.16 \$124.99
Oct-15	64092	\$8,770,557	\$136.84	\$136.84	\$124.50	\$136.84	\$124.50	\$136.84	\$124.50	\$136.84	\$124.50	\$136.84	\$124.50	\$136.84	\$124.50
Nov-15	64102	\$8,085,170	\$126.13	\$126.13	\$125.13	\$126.13	\$125.13	\$126.13	\$125.13	\$126.13	\$125.13	\$126.13	\$125.13	\$126.13	\$125.13
Dec-15	64301	\$8,686,176	\$135.09	\$135.09	\$125.02	\$135.09	\$125.02	\$135.09	\$125.02	\$135.09	\$125.02	\$135.09	\$125.02	\$135.09	\$125.02
Jan-16 Feb-16	60146 60017	\$7,293,193 \$7,256,131	\$121.26 \$120.90	\$121.26 \$120.90	\$125.14 \$126.13	\$121.26 \$120.90	\$125.14 \$126.13	\$121.26 \$120.90	\$125.14 \$126.13	\$121.26 \$120.90	\$125.14 \$126.13	\$121.26 \$120.90	\$125.14 \$126.13	\$121.26 \$120.90	\$125.14 \$126.13
Mar-16	60007	\$8,081,974	\$134.68	\$134.68	\$126.46	\$134.68	\$126.46	\$134.68	\$126.46	\$134.68	\$126.46	\$134.68	\$126.46	\$134.68	\$126.46
Apr-16	59837	\$7,254,320	\$121.23	\$121.23	\$125.96	\$121.23	\$125.96	\$121.23	\$125.96	\$121.23	\$125.96	\$121.23	\$125.96	\$121.23	\$125.96
May-16 Jun-16	59314 59091	\$7,538,418	\$127.09	\$127.09	\$126.38	\$127.09	\$126.38	\$127.09	\$126.38	\$127.09	\$126.38	\$127.09	\$126.38	\$127.09	\$126.38
Jul-16	58874	\$7,645,080 \$6,788,721	\$129.38 \$115.31	\$129.38 \$115.31	\$126.71 \$126.00	\$129.38 \$115.31	\$126.71 \$126.00	\$129.38 \$115.31	\$126.71 \$126.00	\$129.38 \$115.31	\$126.71 \$126.00	\$129.38 \$115.31	\$126.71 \$126.00	\$129.38 \$115.31	\$126.71 \$126.00
Aug-16	58734	\$7,735,390	\$131.70	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21
Sep-16	58673	\$7,735,325	\$131.84	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71
Oct-16 Nov-16	58843 58834	\$7,845,386 \$8,306,279	\$133.33 \$141.18	\$133.33 \$141.18	\$127.36 \$128.60	\$133.33 \$141.18	\$127.36 \$128.60	\$133.33 \$141.18	\$127.36 \$128.60	\$133.33 \$141.18	\$127.36 \$128.60	\$133.33 \$141.18	\$127.36 \$128.60	\$133.33 \$141.18	\$127.36 \$128.60
Dec-16	58349	\$8,148,370	\$139.65	\$139.65	\$128.92	\$139.65	\$128.92	\$139.65	\$128.92	\$139.65	\$128.92	\$139.65	\$128.92	\$139.65	\$128.92
Jan-17	59709	\$8,064,399	\$135.06	\$135.06	\$130.09	\$135.06	\$130.09	\$135.06	\$130.09	\$135.06	\$130.09	\$135.06	\$130.09	\$135.06	\$130.09
Feb-17	59577	\$7,122,674	\$119.55	\$119.55	\$129.98	\$119.55	\$129.98	\$119.55	\$129.98	\$119.55	\$129.98	\$119.55	\$129.98	\$119.55	\$129.98
Mar-17 Apr-17	59382 59297	\$8,173,479 \$7,393,366	\$137.64 \$124.68	\$137.64 \$124.68	\$130.23 \$130.52	\$137.64 \$124.68	\$130.23 \$130.52	\$137.64 \$124.68	\$130.23 \$130.52	\$137.64 \$124.68	\$130.23 \$130.52	\$137.64 \$124.68	\$130.23 \$130.52	\$137.64 \$124.68	\$130.23 \$130.52
May-17	59362	\$8,341,026	\$140.51	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64
Jun-17	59379	\$8,046,381	\$135.51	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16
Jul-17	59380	\$7,418,210	\$124.93	\$124.93	\$132.95	\$124.93	\$132.95	\$124.93	\$132.95	\$124.93	\$132.95	\$124.93	\$132.95	\$124.93	\$132.95
Aug-17 Sep-17	59336 58768	\$8,008,412 \$7,541,401	\$134.97 \$128.32	\$134.97 \$128.32	\$133.22 \$132.93	\$134.97 \$128.32	\$133.22 \$132.93	\$134.97 \$128.32	\$133.22 \$132.93	\$134.97 \$128.32	\$133.22 \$132.93	\$134.97 \$128.32	\$133.22 \$132.93	\$134.97 \$128.32	\$133.22 \$132.93
Oct-17	58735	\$8,575,299	\$146.00	\$146.00	\$133.98	\$146.00	\$133.98	\$146.00	\$133.98	\$146.00	\$133.98	\$146.00	\$133.98	\$146.00	\$133.98
Nov-17	58865	\$8,470,986	\$143.91	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20
Dec-17 Jan-18	58792 56813	\$8,031,257 \$8,501,872	\$136.60 \$149.65	\$136.60 \$149.65	\$133.96 \$135.12	\$136.60 \$149.65	\$133.96 \$135.12	\$136.60 \$149.65	\$133.96 \$135.12	\$136.60 \$149.65	\$133.96 \$135.12	\$136.60 \$149.65	\$133.96 \$135.12	\$136.60 \$149.65	\$133.96 \$135.12
Feb-18	56466	\$7,870,378	\$139.38	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78
Mar-18	56313	\$8,215,263	\$145.89	\$145.89	\$137.44	\$145.89	\$137.44	\$145.89	\$137.44	\$145.89	\$137.44	\$145.89	\$137.44	\$145.89	\$137.44
Apr-18	56488	\$8,151,952	\$144.31	\$144.31	\$139.08	\$144.31	\$139.08	\$144.31	\$139.08	\$144.31	\$139.08	\$144.31	\$139.08	\$144.31	\$139.08
May-18 Jun-18	56688 56666	\$8,647,029 \$7,946,873	\$152.54 \$140.24	\$152.54 \$140.24	\$140.05 \$140.46	\$152.54 \$140.24	\$140.05 \$140.46	\$152.54 \$140.24	\$140.05 \$140.46	\$152.54 \$140.24	\$140.05 \$140.46	\$152.54 \$140.24	\$140.05 \$140.46	\$152.54 \$140.24	\$140.05 \$140.46
Jul-18	56666	4.,	\$1.10.E1	\$132.60	\$141.15	\$132.57	\$141.14	\$133.40	\$141.21	\$133.36	\$141.21	\$142.71	\$141.98	\$142.81	\$141.98
Aug-18	56666			\$144.15	\$141.93	\$144.11	\$141.92	\$144.22	\$142.00	\$144.18	\$141.99	\$143.57	\$142.71	\$143.67	\$142.73
Sep-18	56666			\$138.87	\$142.84	\$138.83	\$142.83	\$139.45	\$142.96	\$139.41	\$142.95	\$144.43	\$144.09	\$144.53	\$144.11
Oct-18 Nov-18	56666 56666			\$155.83 \$155.18	\$143.64 \$144.58	\$155.79 \$155.14	\$143.63 \$144.56	\$155.22 \$154.67	\$143.71 \$144.61	\$155.18 \$154.63	\$143.70 \$144.59	\$145.29 \$146.15	\$144.02 \$144.21	\$145.39 \$146.25	\$144.05 \$144.25
Dec-18	56666			\$133.18	\$144.56	\$133.14	\$144.56	\$134.67	\$144.61	\$134.63	\$144.59	\$146.15	\$144.21	\$146.25	\$144.25
Jan-19	56666			\$160.44	\$146.55	\$160.39	\$146.53	\$159.63	\$146.52	\$159.59	\$146.50	\$147.86	\$144.95	\$147.97	\$145.01
Feb-19	56666			\$148.88	\$147.34	\$148.84	\$147.32	\$149.16	\$147.33	\$149.11	\$147.31	\$148.72	\$145.73	\$148.83	\$145.80
Mar-19	56666			\$158.16	\$148.37	\$158.10	\$148.33	\$157.75	\$148.32	\$157.69	\$148.29	\$149.57	\$146.03	\$149.69	\$146.11
Apr-19	56666			\$154.46	\$149.21	\$154.39	\$149.17	\$154.46	\$149.17	\$154.39	\$149.13	\$150.42	\$146.54	\$150.55	\$146.63
May-19 Jun-19	56666 56666			\$164.40 \$152.43	\$150.20 \$151.22	\$164.31 \$152.34	\$150.15 \$151.16	\$163.62 \$152.77	\$150.09 \$151.14	\$163.54 \$152.68	\$150.05 \$151.08	\$151.28 \$152.13	\$146.44 \$147.43	\$151.41 \$152.27	\$146.54 \$147.54
Juli-19 Jul-19	56666			\$132.43	\$151.22	\$132.34	\$151.16	\$132.77	\$151.14	\$132.00	\$151.08	\$152.13	\$147.43	\$152.27	\$147.54
Aug-19	56666			\$155.89	\$153.10	\$155.74	\$153.03	\$156.16	\$153.13	\$156.01	\$153.05	\$153.83	\$149.14	\$153.99	\$149.26
Sep-19	56666			\$150.11	\$154.04	\$149.95	\$153.96	\$151.39	\$154.12	\$151.23	\$154.04	\$154.68	\$149.99	\$154.84	\$150.12
Oct-19	56666			\$168.35	\$155.08	\$168.17	\$154.99	\$167.16	\$155.12	\$166.99	\$155.02	\$155.53	\$150.85	\$155.70	\$150.98
Nov-19	56666			\$167.57	\$156.11	\$167.37	\$156.01	\$166.62	\$156.11	\$166.43	\$156.01	\$156.37	\$151.70	\$156.56	\$151.84
Dec-19 Jan-20	56666 56666			\$161.01 \$173.08	\$157.10 \$158.15	\$160.80 \$172.85	\$156.98 \$158.02	\$161.21 \$171.58	\$157.11 \$158.10	\$161.01 \$171.36	\$156.99 \$157.97	\$157.22 \$158.07	\$152.55 \$153.40	\$157.42 \$158.28	\$152.70 \$153.56
Feb-20	56666			\$173.06	\$150.15	\$160.31	\$158.97	\$171.36	\$150.10	\$171.36	\$157.97	\$158.91	\$153.40	\$150.26	\$153.56
Mar-20	56666			\$170.46	\$160.15	\$170.20	\$159.98	\$169.69	\$160.09	\$160.87	\$159.93	\$150.71	\$155.10	\$160.00	\$155.27
Apr-20	56666			\$166.39	\$161.14	\$166.12	\$160.96	\$166.40	\$161.09	\$166.13	\$160.91	\$160.60	\$155.95	\$160.86	\$156.13
May-20	56666			\$177.02	\$162.19	\$176.70	\$161.99	\$175.56	\$162.08	\$175.26	\$161.88	\$161.44	\$156.79	\$161.72	\$156.99
Jun-20	56666			\$164.06	\$163.16	\$163.74	\$162.94	\$164.72	\$163.08	\$164.39	\$162.86	\$162.28	\$157.64	\$162.58	\$157.85
Jul-20	56666 56666			\$154.35 \$167.64	\$164.07 \$165.05	\$154.00 \$167.24	\$163.83 \$164.79	\$157.29 \$168.11	\$164.07 \$165.07	\$156.91 \$167.70	\$163.84 \$164.81	\$163.12 \$163.96	\$158.48 \$159.33	\$163.44 \$164.30	\$158.71 \$159.57
Aug-20 Sep-20	56666			\$167.64	\$165.05	\$167.24	\$164.79	\$163.33	\$165.07	\$167.70	\$165.78	\$164.80	\$159.33	\$164.30	\$159.57 \$160.43
Oct-20	56666			\$180.88	\$167.03	\$180.40	\$166.72	\$179.10	\$167.06	\$178.65	\$166.75	\$165.64	\$161.01	\$166.02	\$161.29
Nov-20	56666			\$179.96	\$168.06	\$179.46	\$167.73	\$178.56	\$168.05	\$178.08	\$167.73	\$166.48	\$161.86	\$166.88	\$162.15
Dec-20	56666			\$172.84	\$169.05	\$172.34	\$168.69	\$173.15	\$169.05	\$172.65	\$168.70	\$167.31	\$162.70	\$167.74	\$163.01
		Utilization T			7 749/		7 429/		7 749/		7 429/		6.079/		4 1Fº
		Utilization Trend RMSE (root mean squ	are error)		7.71% 6.94		<b>7.62</b> % 6.95		7.71% 6.86		<b>7.62</b> % 6.86		<b>6.07</b> % 7.86		<b>6.15</b> % 7.85
		se (root mean squ			5.74		5.75		0.00		5.50				

MEDICAL UTILIZATION TREND CALCULATION

Utilization Trend Calculation - Professional Claims - 36 Month Time Series

	Utilization Trend Calculation - Professional Claims - 36 Month Time Series  Adjusted Claims - Holt-Winters' Multiplicative Multiplicative Holt-Winters' Additive Additive Damped Trend Non-Seasonal Smoothing														
		Adjusted Claims - Normalized for	Adjusted		Rolling 12	1	Rolling 12								
Month	Membership	Contract Changes	PMPM	Monthly PMPM	PMPM										
Jul-15	64832	\$8,067,435	\$124.44	\$124.44		\$124.44		\$124.44		\$124.44		\$124.44		\$124.44	
Aug-15	64518	\$7,578,935	\$117.47	\$117.47		\$117.47		\$117.47		\$117.47		\$117.47		\$117.47	
Sep-15	64137 64092	\$8,067,342	\$125.78	\$125.78		\$125.78		\$125.78		\$125.78		\$125.78		\$125.78	
Oct-15 Nov-15	64102	\$8,770,557 \$8,085,170	\$136.84 \$126.13	\$136.84 \$126.13											
Dec-15	64301	\$8,686,176	\$135.09	\$135.09		\$135.09		\$135.09		\$135.09		\$135.09		\$135.09	
Jan-16	60146	\$7,293,193	\$121.26	\$121.26		\$121.26		\$121.26		\$121.26		\$121.26		\$121.26	
Feb-16	60017	\$7,256,131	\$120.90	\$120.90		\$120.90		\$120.90		\$120.90		\$120.90		\$120.90	
Mar-16	60007	\$8,081,974	\$134.68	\$134.68		\$134.68		\$134.68		\$134.68		\$134.68		\$134.68	
Apr-16	59837	\$7,254,320	\$121.23	\$121.23		\$121.23		\$121.23		\$121.23		\$121.23		\$121.23	
May-16 Jun-16	59314 59091	\$7,538,418 \$7,645,080	\$127.09 \$129.38	\$127.09 \$129.38	\$126.71										
Jul-16	58874	\$6,788,721	\$115.31	\$115.31	\$126.00	\$115.31	\$126.00	\$115.31	\$126.00	\$115.31	\$126.00	\$115.31	\$126.00	\$115.31	\$126.00
Aug-16	58734	\$7,735,390	\$131.70	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21	\$131.70	\$127.21
Sep-16	58673	\$7,735,325	\$131.84	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71	\$131.84	\$127.71
Oct-16	58843	\$7,845,386	\$133.33	\$133.33	\$127.36	\$133.33	\$127.36	\$133.33	\$127.36	\$133.33	\$127.36	\$133.33	\$127.36	\$133.33	\$127.36
Nov-16	58834 58349	\$8,306,279	\$141.18	\$141.18	\$128.60	\$141.18	\$128.60	\$141.18	\$128.60	\$141.18	\$128.60	\$141.18	\$128.60	\$141.18	\$128.60
Dec-16 Jan-17	58349 59709	\$8,148,370	\$139.65 \$135.06	\$139.65	\$128.92 \$130.09	\$139.65 \$135.06	\$128.92 \$130.09								
Feb-17	59577	\$8,064,399 \$7,122,674	\$119.55	\$135.06 \$119.55	\$130.09	\$133.06	\$130.09	\$135.06	\$130.09	\$133.06	\$129.98	\$133.06	\$130.09	\$133.06	\$130.09
Mar-17	59382	\$8,173,479	\$137.64	\$137.64	\$130.23	\$137.64	\$130.23	\$137.64	\$130.23	\$137.64	\$130.23	\$137.64	\$130.23	\$137.64	\$130.23
Apr-17	59297	\$7,393,366	\$124.68	\$124.68	\$130.52	\$124.68	\$130.52	\$124.68	\$130.52	\$124.68	\$130.52	\$124.68	\$130.52	\$124.68	\$130.52
May-17	59362	\$8,341,026	\$140.51	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64	\$140.51	\$131.64
Jun-17	59379	\$8,046,381	\$135.51	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16	\$135.51	\$132.16
Jul-17 Aug-17	59380 59336	\$7,418,210 \$8,008,412	\$124.93 \$134.97	\$124.93 \$134.97	\$132.95 \$133.22										
Sep-17	58768	\$7,541,401	\$134.97	\$134.97	\$133.22	\$134.97	\$133.22	\$134.97	\$133.22	\$134.97	\$133.22	\$134.97	\$133.22	\$134.97	\$133.22
Oct-17	58735	\$8,575,299	\$146.00	\$146.00	\$133.98	\$146.00	\$133.98	\$146.00	\$133.98	\$146.00	\$133.98	\$146.00	\$132.75	\$146.00	\$133.98
Nov-17	58865	\$8,470,986	\$143.91	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20	\$143.91	\$134.20
Dec-17	58792	\$8,031,257	\$136.60	\$136.60	\$133.96	\$136.60	\$133.96	\$136.60	\$133.96	\$136.60	\$133.96	\$136.60	\$133.96	\$136.60	\$133.96
Jan-18	56813	\$8,501,872	\$149.65	\$149.65	\$135.12	\$149.65	\$135.12	\$149.65	\$135.12	\$149.65	\$135.12	\$149.65	\$135.12	\$149.65	\$135.12
Feb-18 Mar-18	56466 56313	\$7,870,378	\$139.38	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78	\$139.38	\$136.78
Apr-18	56488	\$8,215,263 \$8,151,952	\$145.89 \$144.31	\$145.89 \$144.31	\$137.44 \$139.08										
May-18	56688	\$8,647,029	\$152.54	\$152.54	\$140.05	\$152.54	\$140.05	\$152.54	\$140.05	\$152.54	\$140.05	\$152.54	\$140.05	\$152.54	\$140.05
Jun-18	56666	\$7,946,873	\$140.24	\$140.24	\$140.46	\$140.24	\$140.46	\$140.24	\$140.46	\$140.24	\$140.46	\$140.24	\$140.46	\$140.24	\$140.46
Jul-18	56666			\$135.10	\$141.35	\$135.05	\$141.35	\$136.06	\$141.43	\$136.26	\$141.45	\$145.98	\$142.24	\$146.03	\$142.25
Aug-18	56666			\$144.92	\$142.20	\$144.87	\$142.19	\$145.01	\$142.28	\$144.53	\$142.26	\$147.14	\$143.27	\$147.19	\$143.28
Sep-18	56666			\$143.21	\$143.47	\$143.16	\$143.46	\$143.53	\$143.58	\$141.94	\$143.43	\$148.30	\$144.97	\$148.36	\$144.98
Oct-18 Nov-18	56666 56666			\$157.56 \$156.76	\$144.42 \$145.49	\$157.49 \$156.68	\$144.40 \$145.46	\$156.63 \$155.93	\$144.45 \$145.46	\$154.40 \$152.40	\$144.11 \$144.82	\$149.45 \$150.61	\$145.25 \$145.82	\$149.52 \$150.68	\$145.27 \$145.84
Dec-18	56666			\$154.38	\$147.00	\$150.00	\$146.97	\$153.83	\$146.92	\$149.04	\$145.88	\$150.01	\$147.11	\$150.88	\$143.64
Jan-19	56666			\$158.65	\$147.75	\$158.56	\$147.71	\$157.94	\$147.61	\$151.96	\$146.08	\$152.92	\$147.38	\$153.01	\$147.42
Feb-19	56666			\$148.03	\$148.47	\$147.94	\$148.42	\$148.67	\$148.38	\$140.30	\$146.15	\$154.07	\$148.60	\$154.17	\$148.65
Mar-19	56666			\$160.67	\$149.70	\$160.56	\$149.64	\$159.83	\$149.54	\$149.95	\$146.49	\$155.22	\$149.38	\$155.33	\$149.44
Apr-19	56666			\$153.18	\$150.44	\$153.07	\$150.37	\$153.52	\$150.31	\$142.63	\$146.35	\$156.37	\$150.38	\$156.49	\$150.45
May-19 Jun-19	56666 56666			\$164.27 \$155.83	\$151.41 \$152.71	\$164.13 \$155.69	\$151.34 \$152.63	\$163.35 \$155.88	\$151.21 \$152.52	\$151.03 \$142.69	\$146.22 \$146.43	\$157.52 \$158.67	\$150.80 \$152.33	\$157.65 \$158.82	\$150.88 \$152.42
Juli-19 Jul-19	56666			\$155.83	\$152.71	\$155.69	\$152.63	\$155.88	\$152.52	\$142.69	\$146.43	\$158.67	\$152.33 \$153.49	\$158.82	\$152.42 \$153.59
Aug-19	56666			\$158.08	\$154.84	\$157.88	\$154.73	\$158.25	\$154.72	\$144.52	\$146.42	\$160.96	\$154.64	\$161.14	\$154.75
Sep-19	56666			\$156.12	\$155.92	\$155.90	\$155.79	\$156.77	\$155.83	\$141.94	\$146.42	\$162.10	\$155.79	\$162.30	\$155.91
Oct-19	56666			\$171.65	\$157.09	\$171.40	\$156.95	\$169.87	\$156.93	\$154.40	\$146.42	\$163.25	\$156.94	\$163.46	\$157.07
Nov-19	56666			\$170.67	\$158.25	\$170.40	\$158.09	\$169.17	\$158.03	\$152.40	\$146.42	\$164.39	\$158.09	\$164.63	\$158.24
Dec-19	56666			\$167.99	\$159.38	\$167.70	\$159.21	\$167.07	\$159.14	\$149.04	\$146.42	\$165.53	\$159.23	\$165.79	\$159.40
Jan-20	56666			\$172.53	\$160.54	\$172.22	\$160.35	\$171.18	\$160.24	\$151.96	\$146.42	\$166.67	\$160.38	\$166.95	\$160.56
Feb-20	56666			\$160.88	\$161.61	\$160.57	\$161.40	\$161.91	\$161.34	\$140.30	\$146.42	\$167.81	\$161.53	\$168.11	\$161.72
Mar-20	56666			\$174.53	\$162.77	\$174.17	\$162.53	\$173.07	\$162.45	\$149.95	\$146.42	\$168.95	\$162.67	\$169.28	\$162.88
Apr-20	56666			\$166.30	\$163.86	\$165.93	\$163.61	\$166.76	\$163.55	\$142.63	\$146.42	\$170.08	\$163.81	\$170.44	\$164.05
May-20	56666			\$178.23	\$165.02	\$177.82	\$164.75	\$176.59	\$164.65	\$151.03	\$146.42	\$171.22	\$164.95	\$171.60	\$165.21
Jun-20 Jul-20	56666 56666			\$168.98 \$159.82	\$166.12 \$167.15	\$168.56 \$159.37	\$165.82 \$166.83	\$169.12 \$162.54	\$165.76 \$166.86	\$142.69 \$136.23	\$146.42 \$146.42	\$172.35 \$173.49	\$166.09 \$167.23	\$172.76 \$173.92	\$166.37 \$167.53
Jul-20 Aug-20	56666			\$159.82	\$167.15	\$159.37	\$166.83	\$162.54	\$165.86	\$136.23	\$146.42	\$173.49 \$174.62	\$167.23	\$173.92	\$167.53
Sep-20	56666			\$169.02	\$169.32	\$170.73	\$167.90	\$171.49	\$167.96	\$144.52	\$146.42	\$174.62	\$169.51	\$175.09	\$168.86
Oct-20	56666			\$185.74	\$170.49	\$185.13	\$170.09	\$183.11	\$170.17	\$154.40	\$146.42	\$175.75	\$170.65	\$170.23	\$171.02
Nov-20	56666			\$184.59	\$171.65	\$183.96	\$170.07	\$182.40	\$170.17	\$152.40	\$146.42	\$178.01	\$170.03	\$177.41	\$171.02
Dec-20	56666			\$181.59	\$172.79	\$180.94	\$172.33	\$180.31	\$172.37	\$149.04	\$146.42	\$179.13	\$172.91	\$179.74	\$173.34
		Utilization Trend			8.66%		8.54%		8.55%		1.68%		8.69%		8.80%
		RMSE (root mean squa	are error)		7.7		7.71		7.6		8.16		7.22		7.21

MEDICAL UTILIZATION TREND CALCULATION

Utilization Trend Calculation - Professional Claims - 24 Month Time Series

Month   Membership   Normalized for   Monthly pMpM   Monthly pMp	Rolling 12 PMPM \$132.14 \$133.04
Aug-16         58734         57,735,390         \$131,70 <t< td=""><td></td></t<>	
Sep-16         58673         57,735,325         \$131.84         \$141.18         \$141.18         \$141.18         \$141.18         \$141.18         \$141.18 <t< td=""><td></td></t<>	
Oct-16         58843         57,845,386         513,33         513,56         519,65         519,65         519,65         519,65         513,66         513,66         513,66         513,506         513,506         513,506         5135,06         5135,06         5135,06         5135,06         5135,06         5135,06         5135,06         5135,06         5135,06         5135,06         5135,06         5135,06         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64         5137,64	
Nov-16 58834 58,306,279 5141.18 5141.1	
Dec-16         58349         \$8,148,370         \$139,65         \$135,06 <t< td=""><td></td></t<>	
Jan-17   59709   \$8,064,399   \$135.06   \$135	
Feb-17 59577 57,122,674 5119.55 5119.51 5119.55 5119.55 5119.55 5119.55 5119.55 5119.55 5119.55 5119.51 5119.55 5119.55 5119.55 5119.55 5119.55 5119.55 5119.55 5119.51 5119.55 5119.55 5119.55 5119.55 5119.55 5119.55 5119.55 5119.51 5119.55 5119.5	
Mar-17 59382 S8,173,479 \$137.64 \$137.6	
Apr-17   59297   57,393,366   5124,68   5124	
May-17 59362 S8,341,026 5140.51 5140.5	
Jun-17 59379 S8,046,381 5135.51 5132.16 5132.16 5132.1	
Jul-17         59380         57,418,210         \$124.93         \$132.95         \$132.95 <t< td=""><td></td></t<>	
Aug-17         59336         \$8,008,412         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$134,97         \$133,22         \$132,93         \$128,32         \$132,93         \$128,32         \$132,93         \$128,32         \$132,93         \$128,32         \$132,93         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$133,98         \$146,00         \$134,20         \$143,91         \$142,00         \$143,91         \$134,20         \$143,91         \$134,20         \$143,91         \$134,20         \$143,91         \$134,20         \$143,91         \$134,20         \$133,96         \$136,60         \$133,95         \$136,60         \$133,95         \$136,60         \$133,96 <t< td=""><td>\$133.04</td></t<>	\$133.04
Sep-17         58768         57,541,401         \$128.32         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$132.93         \$128.32         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$134.20         \$143.91         \$143.91         \$134.20         \$134.91         \$134.20         \$143.91         \$134.20         \$134.91         \$134.20         \$134.91         \$134.20         \$134.91         \$134.20         \$134.91         \$134.20         \$134.91         \$134.20         \$134.91         \$134.20         \$134.91         \$134.20         \$133.96         \$136.60         \$133.96         \$136.60         \$133.96         \$136.60         \$133.96         \$136.60         \$133.96         \$136.60         \$133.96         \$136.00         \$133.91         \$149.65         \$135.12         \$149.65         \$135.12         \$149.65 <t< td=""><td></td></t<>	
Oct-17         58735         \$8,575,299         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$133.98         \$146.00         \$134.20         \$143.91         \$146.00         \$143.91         \$146.00         \$134.20         \$143.91         \$146.00         \$134.20         \$143.91         \$146.00         \$143.91         \$146.00         \$143.91         \$146.00         \$143.91         \$146.00         \$143.91         \$146.00         \$143.91         \$146.00         \$140.00 <t< td=""><td>\$133.31</td></t<>	\$133.31
Nov-17 58865 58,470,986 5143,91 5134,20 5144,20 5144,20 5144,20 5144,20 5144,20 5144,20 5144,20 5144,20 5144,2	\$133.04 \$134.07
Dec-17 58792 \$8,031,257 \$136.60 \$136.60 \$133.96 \$136.60 \$136.60 \$136.60 \$136.60 \$136.60 \$136.60 \$136.60 \$136.00 \$136.00 \$136.00 \$136.00 \$136.00 \$136.00 \$136.00 \$136.00 \$136.0	\$134.07
Jan-18 56813 \$8,501,872 \$149.65 \$149.65 \$135.12 \$149.65 \$135.12 \$149.65 \$135.12 \$149.65 \$135.12 \$149.65	\$134.24 \$133.95
	\$135.95
	\$136.85
Mar-18 56313 S8,215,663 5145,89 5137,44 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,89 5137,49 5145,8	\$130.63
Apr-18 56488 \$8,151,952 \$144,31 \$139,08 \$144,31 \$139,08 \$144,31 \$139,08 \$144,31 \$139,19 \$144,31	\$139.19
May-18 56688 S8,647,029 S152.54 S152.54 S140.05 S152.54 S140.0	\$140.20
Jun-18 56666 57,946,873 \$140,24 \$140,24 \$140,24 \$140,46 \$140,24 \$140,46 \$140,24 \$140,46 \$140,24 \$140,29 \$140,24	\$140.59
Jul-18 56666 \$129.93 \$140.93 \$129.34 \$140.88 \$141.46 \$141.87 \$140.86 \$141.82 \$145.11 \$142.27 \$146.09	\$142.35
Aug-18 56666 \$150.03 \$142.19 \$149.06 \$142.06 \$152.31 \$143.33 \$151.63 \$143.22 \$144.88 \$143.09 \$146.74	\$143.33
Sep-18 56666 \$151.81 \$144.17 \$150.51 \$143.94 \$146.84 \$144.90 \$146.10 \$144.74 \$144.77 \$144.45 \$147.38	\$144.90
Oct-18 56666 \$155.25 \$144.93 \$153.50 \$144.55 \$164.99 \$146.47 \$163.76 \$146.20 \$144.73 \$144.35 \$148.03	\$145.07
Nov-18 56666 \$166.13 \$146.79 \$163.84 \$146.21 \$163.47 \$148.11 \$162.19 \$147.73 \$144.71 \$144.41 \$148.68	\$145.47
Dec-18 56666 \$166.06 \$149.27 \$163.31 \$148.47 \$157.25 \$149.87 \$155.87 \$149.37 \$144.70 \$145.08 \$149.32	\$146.51
Jan-19 56666 \$162.35 \$150.33 \$159.14 \$149.26 \$170.71 \$151.62 \$168.79 \$150.97 \$144.70 \$144.66 \$149.97	\$146.53
Feb-19 56666 \$145.22 \$150.82 \$141.88 \$149.47 \$160.02 \$153.34 \$157.73 \$152.50 \$144.70 \$145.11 \$150.61	\$147.46
Mar-19 56666 \$168.87 \$152.73 \$164.45 \$151.01 \$166.19 \$155.03 \$163.82 \$153.99 \$144.70 \$145.01 \$151.26	\$147.90
Apr-19 56666 \$154.56 \$153.58 \$149.96 \$151.48 \$163.72 \$156.64 \$160.87 \$155.37 \$144.70 \$145.05 \$151.90	\$148.52
May-19 56666 \$175.91 \$155.53 \$170.05 \$152.94 \$171.20 \$158.20 \$168.21 \$156.67 \$144.70 \$144.38 \$152.55	\$148.51
Jun-19 56666 \$171.32 \$158.12 \$164.99 \$155.00 \$158.92 \$159.76 \$155.80 \$157.97 \$144.70 \$144.76 \$153.19	\$149.60
Jul-19 56666 \$147.29 \$159.57 \$141.24 \$155.99 \$160.13 \$161.31 \$155.96 \$159.23 \$144.70 \$144.72 \$153.84	\$150.25
Aug-19 56666 \$169.85 \$161.22 \$162.23 \$157.09 \$170.98 \$162.87 \$166.48 \$160.47 \$144.70 \$144.71 \$154.48	\$150.90
Sep-19 56666 \$171.65 \$162.87 \$163.27 \$158.16 \$165.51 \$164.42 \$160.70 \$161.68 \$144.70 \$144.70 \$155.13	\$151.55
Oct-19 56666 \$175.31 \$164.54 \$166.00 \$159.20 \$183.66 \$165.98 \$178.10 \$162.88 \$144.70 \$144.70 \$155.77	\$152.21
Nov-19 56666 \$187.37 \$166.31 \$176.65 \$160.26 \$182.14 \$167.54 \$176.29 \$164.05 \$144.70 \$144.70 \$156.42	\$152.86
Dec-19 56666 \$187.07 \$168.06 \$175.58 \$161.29 \$175.92 \$169.09 \$169.72 \$165.21 \$144.70 \$144.70 \$157.06	\$153.52
Jan-20 56666 \$182.67 \$169.76 \$170.63 \$162.24 \$189.38 \$170.65 \$182.40 \$166.34 \$144.70 \$144.70 \$157.71	\$154.16
Feb-20 56666 \$163.22 \$171.26 \$151.73 \$163.07 \$178.69 \$172.20 \$171.10 \$167.45 \$144.70 \$144.70 \$158.36	\$154.81
Mar-20 56666 \$189.58 \$172.98 \$175.43 \$163.98 \$184.86 \$173.76 \$176.97 \$168.55 \$144.70 \$144.70 \$159.00	\$155.45
Apr-20 56666 \$173.33 \$174.55 \$159.59 \$164.78 \$182.39 \$175.32 \$173.79 \$169.63 \$144.70 \$144.70 \$159.65	\$156.10
May-20 56666 5197.05 5176.31 5180.55 5165.66 5189.87 5176.87 5180.91 5170.69 5144.70 5144.70 5160.29 5107.20 56666 5191.70 5178.01 5174.80 5166.48 5177.58 5178.43 5168.29 5171.73 5144.70 5144.70 5160.29	\$156.74
	\$157.39
	\$158.03
	\$158.68
Sep-20 56666 5191.49 5182.76 5171.94 5168.62 5184.18 5183.09 5172.55 5174.74 5144.70 5144.70 5162.87	\$159.32
Oct-20 56666 \$195.38 \$184.43 \$174.49 \$169.33 \$202.32 \$184.65 \$189.74 \$175.71 \$144.70 \$144.70 \$163.52	\$159.97
Nov-20 56666 \$208.62 \$186.20 \$185.35 \$170.05 \$200.80 \$186.20 \$187.73 \$176.66 \$144.70 \$144.70 \$164.16	\$160.61
Dec-20 56666 \$208.08 \$187.95 \$183.91 \$170.74 \$194.58 \$187.76 \$180.97 \$177.60 \$144.70 \$144.70 \$164.81	\$161.26
Utilization Trend 12.38% 8.14% 12.33% 9.86% 1.16%	5.65%
RMSE (root mean square error) 8.31 8.3 0.81 8.1 8.83	8.82

# MEDICAL UTILIZATION TREND CALCULATION INDUCED UTILIZATION

		Average	Normalization
	Average Paid	Induced	Factor for
	to Allowed	Utilization	Induced
Month	Ratio	Factor	Utilization
Jul-15	0.7468	1.0509	
Aug-15	0.7462	1.0506	
Sep-15	0.7461	1.0506	
Oct-15	0.7451	1.0501	
Nov-15	0.7446	1.0498	
Dec-15	0.7438	1.0494	
Jan-16	0.7439	1.0495	
Feb-16	0.7429	1.0490	
Mar-16	0.7425	1.0488	
Apr-16	0.7427	1.0489	
May-16	0.7421	1.0486	
Jun-16	0.7422	1.0486	
Jul-16	0.7414	1.0483	0.9975
Aug-16	0.7422	1.0487	0.9981
Sep-16	0.7425	1.0488	0.9983
Oct-16	0.7422	1.0487	0.9987
Nov-16	0.7433	1.0492	0.9994
Dec-16	0.7436	1.0494	0.9999
Jan-17	0.7415	1.0483	0.9989
Feb-17	0.7413	1.0482	0.9992
Mar-17	0.7415	1.0483	0.9995
Apr-17	0.7413	1.0482	0.9994
May-17	0.7407	1.0479	0.9993
Jun-17	0.7405	1.0479	0.9992
Jul-17	0.7415	1.0483	1.0000
Aug-17	0.7419	1.0485	0.9998
Sep-17	0.7416	1.0484	0.9996
Oct-17	0.7428	1.0489	1.0002
Nov-17	0.7432	1.0491	0.9999
Dec-17	0.7432	1.0492	0.9998
Jan-18	0.7418	1.0485	1.0001
Feb-18	0.7410	1.0481	0.9999
Mar-18	0.7392	1.0472	0.9989
Apr-18	0.7388	1.0470	0.9989
May-18	0.7392	1.0472	0.9993
Jun-18	0.7384	1.0468	0.9990

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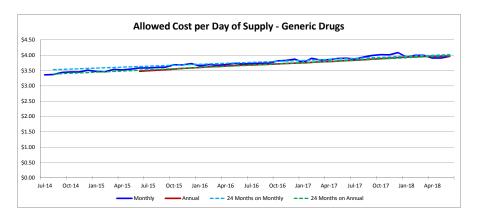
#### BLUE CROSS AND BLUE SHIELD OF VERMONT 2020 ASSOCIATION HEALTH PLAN RATING PROGRAM FILING

# PHARMACY TREND DEVELOPMENT FOR ESI CLAIMS

GENERIC DRUGS - COST TREND

[		MONTHLY	DATA			ROLLIN	G 12		EXPONE	NTIAL FIT
						Adjusted				
Incurred				Monthly		Allowed		Rolling 12	Monthly	Rolling 12
Date	Supply	AWP Cost	Cost/ Supply	Cost Trend	Supply	Charge	Cost/ Supply	Cost Trend	Data	Data
Jul-14	1,724,297	\$5,792,151	\$3.36							
Aug-14	1,697,228	\$5,721,030	\$3.37						\$3.53	\$3.39
Sep-14	1,707,011	\$5,862,171	\$3.43						\$3.54	\$3.40
Oct-14	1,725,951	\$5,954,323	\$3.45						\$3.55	\$3.41
Nov-14	1,577,712	\$5,445,292	\$3.45						\$3.56	\$3.42
Dec-14	1,836,771	\$6,444,728	\$3.51						\$3.57	\$3.44
Jan-15	1,611,665	\$5,585,384	\$3.47						\$3.58	\$3.45
Feb-15	1,531,999	\$5,299,187	\$3.46						\$3.59	\$3.46
Mar-15	1,709,914	\$6,044,404	\$3.53						\$3.60	\$3.47
Apr-15	1,634,473	\$5,751,287	\$3.52						\$3.61	\$3.49
May-15	1,651,229	\$5,851,957	\$3.54						\$3.62	\$3.50
Jun-15	1,678,870	\$6,010,815	\$3.58		20,087,120	\$69,762,728	\$3.47		\$3.63	\$3.51
Jul-15	1,660,082	\$5,945,565	\$3.58	6.6%	20,022,905	\$69,916,142	\$3.49		\$3.64	\$3.52
Aug-15	1,646,622	\$5,927,363	\$3.60	6.8%	19,972,299	\$70,122,476	\$3.51		\$3.65	\$3.54
Sep-15	1,636,840	\$5,907,213	\$3.61	5.1%	19,902,128	\$70,167,518	\$3.53		\$3.66	\$3.55
Oct-15	1,681,132	\$6,200,257	\$3.69	6.9%	19,857,309	\$70,413,453	\$3.55		\$3.67	\$3.56
Nov-15	1,625,630	\$5,984,971	\$3.68	6.7%	19,905,227	\$70,953,131	\$3.56		\$3.68	\$3.57
Dec-15	1,825,704	\$6,800,569	\$3.72	6.2%	19,894,160	\$71,308,973	\$3.58		\$3.69	\$3.59
Jan-16	1,517,600	\$5,538,461	\$3.65	5.3%	19,800,095	\$71,262,050	\$3.60		\$3.70	\$3.60
Feb-16	1,513,939	\$5,588,073	\$3.69	6.7%	19,782,034	\$71,550,936	\$3.62		\$3.72	\$3.61
Mar-16	1,651,275	\$6,066,494	\$3.67	3.9%	19,723,395	\$71,573,026	\$3.63		\$3.73	\$3.62
Apr-16	1,538,992	\$5,685,341	\$3.69	5.0%	19,627,914	\$71,507,080	\$3.64		\$3.74	\$3.64
May-16	1,568,788	\$5,853,950	\$3.73	5.3%	19,545,473	\$71,509,073	\$3.66		\$3.75	\$3.65
Jun-16	1,593,241	\$5,919,413	\$3.72	3.8%	19,459,844	\$71,417,671	\$3.67		\$3.76	\$3.66
Jul-16	1,535,004	\$5,725,224	\$3.73	4.1%	19,334,766	\$71,197,329	\$3.68		\$3.77	\$3.68
Aug-16	1,615,645	\$6,031,635	\$3.73	3.7%	19,303,789	\$71,301,601	\$3.69		\$3.78	\$3.69
Sep-16	1,572,877	\$5,881,774	\$3.74	3.6%	19,239,826	\$71,276,161	\$3.70		\$3.79	\$3.70
Oct-16	1,600,897	\$6,106,775	\$3.81	3.4%	19,159,591	\$71,182,680	\$3.72		\$3.80	\$3.72
Nov-16	1,602,524	\$6,132,064	\$3.83	3.9%	19,136,485	\$71,329,773	\$3.73		\$3.81	\$3.73
Dec-16	1,703,904	\$6,593,538	\$3.87	3.9%	19,014,685	\$71,122,741	\$3.74		\$3.82	\$3.74
Jan-17	1,570,882	\$5,909,687	\$3.76	3.1%	19,067,967	\$71,493,968	\$3.75		\$3.83	\$3.76
Feb-17	1,401,662	\$5,461,730	\$3.90	5.6%	18,955,691	\$71,367,625	\$3.76		\$3.84	\$3.77
Mar-17	1,592,032	\$6,109,548	\$3.84	4.5%	18,896,448	\$71,410,679	\$3.78		\$3.85	\$3.78
Apr-17	1,470,567	\$5,666,834	\$3.85	4.3%	18,828,023	\$71,392,172	\$3.79		\$3.87	\$3.80
May-17	1,598,969	\$6,224,990	\$3.89	4.3%	18,858,204	\$71,763,211	\$3.81		\$3.88	\$3.81
Jun-17	1,520,633	\$5,931,593	\$3.90	5.0%	18,785,596	\$71,775,392	\$3.82		\$3.89	\$3.82
Jul-17	1,500,788	\$5,804,769	\$3.87	3.7%	18,751,380	\$71,854,937	\$3.83		\$3.90	\$3.84
Aug-17	1,591,668	\$6,263,601	\$3.94	5.4%	18,727,403	\$72,086,903	\$3.85		\$3.91	\$3.85
Sep-17	1,441,307	\$5,751,254	\$3.99	6.7%	18,595,833	\$71,956,383	\$3.87		\$3.92	\$3.86
Oct-17	1,578,584	\$6,336,932	\$4.01	5.2%	18,573,520	\$72,186,540	\$3.89		\$3.93	\$3.88
Nov-17	1,557,950	\$6,244,519	\$4.01	4.7%	18,528,946	\$72,298,994	\$3.90		\$3.94	\$3.89
Dec-17	1,575,839	\$6,432,571	\$4.08	5.5%	18,400,881	\$72,138,027	\$3.92		\$3.95	\$3.91
Jan-18	1,523,078	\$5,996,292	\$3.94	4.7%	18,353,077	\$72,130,027	\$3.72		\$3.97	\$3.92
Feb-18	1,345,288	\$5,373,041	\$3.99	2.5%	18,296,703	\$72,135,942	\$3.94		\$3.98	\$3.92
Mar-18	1,543,288	\$6,037,603	\$3.99	4.1%	18,216,045	\$72,063,997	\$3.96		\$3.99	\$3.95
Apr-18	1,454,238	\$5,681,118	\$3.91	1.4%	18,199,716	\$72,003,797	\$3.96		\$4.00	\$3.96
May-18	1,538,057	\$6,008,999	\$3.91	0.4%	18,138,804	\$71,862,291	\$3.96		\$4.00	\$3.98
Jun-18		\$5,707,238	\$3.91	1.7%	18,057,244	\$71,862,291	\$3.96 \$3.97		\$4.01 \$4.02	\$3.98
Juli-10	1,439,073	\$3,7U7,Z38	33.77	1.7%	10,037,244	21,037,733	\$3.77		\$4.UZ	\$3.77

Exponential Trend: 3.5% 4.4%



Regressions

 
 24 Months on Monthly

 1.000
 0.071

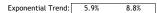
 0.000
 0.616
 0.657 0.015 42.110 22.000

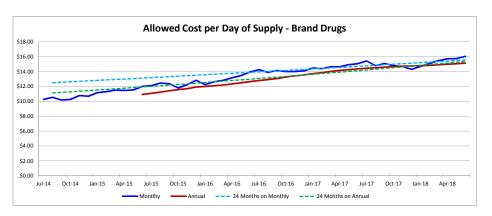
24 Months	on Annual
1.000	0.025
0.000	0.093
0.993	0.002
2911.470	22.000

# PHARMACY TREND DEVELOPMENT FOR ESI CLAIMS

BRAND DRUGS - COST TREND

		MONTHI	Y DATA			ROLLIN	G 12		EXPONE	NTIAL FIT
						Adjusted				
Incurred				Monthly		Allowed		Rolling 12	Monthly	Rolling 12
Date	Supply	AWP Cost	Cost/ Supply	Cost Trend	Supply	Charge	Cost/ Supply	Cost Trend	Data	Data
Jul-14	238,294	\$2,444,259	\$10.26							
Aug-14	234,067	\$2,467,530	\$10.54						\$12.53	\$11.14
Sep-14	248,819	\$2,530,158	\$10.17						\$12.59	\$11.22
Oct-14	264,758	\$2,715,741	\$10.26						\$12.65	\$11.30
Nov-14	224,981	\$2,426,272	\$10.78						\$12.71	\$11.38
Dec-14	286,017	\$3,057,519	\$10.69						\$12.77	\$11.46
Jan-15	215,258	\$2,406,014	\$11.18						\$12.83	\$11.54
Feb-15	201,691	\$2,279,058	\$11.30						\$12.89	\$11.62
Mar-15	222,067	\$2,555,934	\$11.51						\$12.95	\$11.70
Apr-15	223,301	\$2,559,870	\$11.46		2,359,253	\$25,442,356			\$13.01	\$11.78
May-15	212,357	\$2,450,167	\$11.54		2,571,610	\$27,892,523			\$13.07	\$11.86
Jun-15	221,206	\$2,655,786	\$12.01		2,792,816	\$30,548,309	\$10.94		\$13.13	\$11.95
Jul-15	215,911	\$2,617,113	\$12.12	18.2%	2,770,433	\$30,721,163	\$11.09		\$13.20	\$12.03
Aug-15	216,045	\$2,689,248	\$12.45	18.1%	2,752,411	\$30,942,882	\$11.24		\$13.26	\$12.11
Sep-15	217,572	\$2,692,135	\$12.37	21.7%	2,721,164	\$31,104,858	\$11.43		\$13.32	\$12.20
Oct-15	236,353	\$2,784,997	\$11.78	14.9%	2,692,759	\$31,174,114	\$11.58		\$13.39	\$12.29
Nov-15	221,286	\$2,711,487	\$12.25	13.6%	2,689,064	\$31,459,329	\$11.70		\$13.45	\$12.37
Dec-15	263,578	\$3,379,104	\$12.82	19.9%	2,666,625	\$31,780,914	\$11.92		\$13.51	\$12.46
Jan-16	194,224	\$2,377,462	\$12.24	9.5%	2,645,591	\$31,752,361	\$12.00		\$13.58	\$12.55
Feb-16	186,249	\$2,352,111	\$12.63	11.8%	2,630,150	\$31,825,414	\$12.10		\$13.65	\$12.64
Mar-16	220,453	\$2,825,358	\$12.82	11.4%	2,628,536	\$32,094,838	\$12.21		\$13.71	\$12.72
Apr-16	195,440	\$2,574,533	\$13.17	14.9%	2,600,675	\$32,109,501	\$12.35		\$13.77	\$12.81
May-16	191,506	\$2,581,073	\$13.48	16.8%	2,579,824	\$32,240,407	\$12.50		\$13.84	\$12.90
Jun-16	188,740	\$2,631,011	\$13.94	16.1%	2,547,358	\$32,215,631	\$12.65	15.6%	\$13.91	\$13.00
Jul-16	180,256	\$2,570,343	\$14.26	17.6%	2,511,703	\$32,168,860	\$12.81	15.5%	\$13.97	\$13.09
Aug-16	194,136	\$2,697,463	\$13.89	11.6%	2,489,794	\$32,177,075	\$12.92	15.0%	\$14.04	\$13.18
Sep-16	195,589	\$2,770,587	\$14.17	14.5%	2,467,811	\$32,255,527	\$13.07	14.3%	\$14.11	\$13.27
Oct-16	196,162	\$2,746,012	\$14.00	18.8%	2,427,620	\$32,216,543	\$13.27	14.6%	\$14.17	\$13.37
Nov-16	196,321	\$2,750,344	\$14.01	14.3%	2,402,655	\$32,255,399	\$13.42	14.8%	\$14.24	\$13.46
Dec-16	216,500	\$3,049,453	\$14.09	9.9%	2,355,577	\$31,925,748	\$13.55	13.7%	\$14.31	\$13.56
Jan-17	170,921	\$2,474,801	\$14.48	18.3%	2,332,273	\$32,023,087	\$13.73	14.4%	\$14.38	\$13.65
Feb-17	155,290	\$2,234,637	\$14.39	13.9%	2,301,314	\$31,905,613	\$13.86	14.6%	\$14.45	\$13.75
Mar-17	182,234	\$2,669,738	\$14.65	14.3%	2,263,095	\$31,749,994	\$14.03	14.9%	\$14.51	\$13.73
Apr-17	162,847	\$2,386,306	\$14.65	11.2%	2,230,502	\$31,561,766	\$14.05	14.6%	\$14.58	\$13.94
May-17	178,096	\$2,660,896	\$14.94	10.9%	2,217,092	\$31,641,590	\$14.13	14.2%	\$14.65	\$14.04
Jun-17	167,506	\$2,523,871	\$15.07	8.1%	2,195,858	\$31,534,450	\$14.27	13.6%	\$14.72	\$14.04
Jul-17 Jul-17	166,323	\$2,564,095	\$15.07	8.1%	2,193,838	\$31,528,202	\$14.30	12.8%	\$14.72	\$14.14
Aug-17	174,252		\$13.42	6.5%	2,161,923	\$31,408,201	\$14.43	12.6%	\$14.86	\$14.23
Sep-17	161,337	\$2,577,462 \$2,433,615	\$14.79	6.5%	2,102,041	\$31,406,201	\$14.55 \$14.60	11.7%	\$14.00	\$14.34 \$14.44
Oct-17	187,550	\$2,433,613	\$13.06	5.7%	2,127,769	\$31,071,229	\$14.68	10.6%	\$14.93	\$14.44 \$14.54
Nov-17	182,601	\$2,773,232	\$14.60	4.8%	2,119,177	\$31,100,449	\$14.00 \$14.74	9.8%	\$15.00	\$14.54 \$14.64
Dec-17			\$14.67	1.6%		\$31,029,773		9.8% 8.9%	\$15.08	\$14.64 \$14.74
	194,889	\$2,788,804			2,083,846	. , ,	\$14.77 \$14.79			
Jan-18	157,629	\$2,314,443	\$14.68	1.4%	2,070,554	\$30,608,767	\$14.78	7.7%	\$15.22	\$14.85
Feb-18	144,117	\$2,177,470	\$15.11	5.0%	2,059,381	\$30,551,600	\$14.84	7.0%	\$15.29	\$14.96
Mar-18	163,033	\$2,520,289	\$15.46	5.5%	2,040,180	\$30,402,151	\$14.90	6.2%	\$15.36	\$15.05
Apr-18	159,718	\$2,511,117	\$15.72	7.3%	2,037,051	\$30,526,962	\$14.99	5.9%	\$15.44	\$15.16
May-18	163,775	\$2,578,214	\$15.74	5.4%	2,022,730	\$30,444,279	\$15.05	5.5%	\$15.51	\$15.27
Jun-18	159,949	\$2,565,689	\$16.04	6.5%	2,015,173	\$30,486,098	\$15.13	5.3%	\$15.58	\$15.38





Regressions

 24 Months on Monthly

 1.000
 0.018

 0.000
 0.939

 0.698
 0.023

 50.841
 22.000

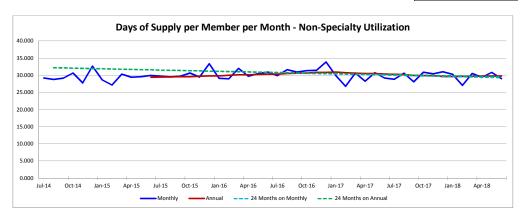
24 Months	on Annual
1.000	0.001
0.000	0.535
0.939	0.013
341.057	22.000

# PHARMACY TREND DEVELOPMENT FOR ESI CLAIMS

#### NON-SPECIALTY DRUGS - UTILIZATION TREND

		MONTH	LY DATA			ROLLIN	EXPONENTIAL FIT			
				Monthly				Rolling 12		
Incurred			Supply per	Utilization			Supply per	Utilization		Rolling 12
	Membership	Supply	Member	Trend	Membership	Supply	Member	Trend	Monthly Data	Data
Jul-14	68,855	2,010,092	29.193							
Aug-14	68,711	1,975,866	28.756						32.257	32.162
Sep-14	68,611	2,000,733	29.161						32.188	32.103
Oct-14	66,404	2,034,469	30.638						32.122	32.046
Nov-14	66,484	1,844,198	27.739						32.053	31.987
Dec-14	66,505	2,171,696	32.655						31.987	31.930
Jan-15	65,209	1,867,289	28.635						31.919	31.871
Feb-15	65,322	1,772,117	27.129						31.851	31.812
Mar-15	65,179	1,976,825	30.329						31.790	31.759
Apr-15	64,721	1,904,804	29.431						31.722	31.700
May-15	64,597	1,911,194	29.586						31.657	31.644
Jun-15	65,121	1,949,158	29.931		795,719	23,418,441	29.431		31.590	31.585
Jul-15	64,832	1,925,517	29.700	1.7%	791,696	23,333,866	29.473		31.525	31.529
Aug-15	64,518	1,904,940	29.526	2.7%	787,503	23,262,940	29.540		31.458	31.471
Sep-15	64,137	1,900,675	29.635	1.6%	783,029	23,162,882	29.581		31.391	31.413
Oct-15	64,092	1,964,389	30.650	0.0%	780,717	23,092,802	29.579		31.326	31.357
Nov-15	64,102	1,889,261	29.473	6.3%	778,335	23,137,865	29.727		31.259	31.299
Dec-15	64,301	2,143,135	33.330	2.1%	776,131	23,109,304	29.775		31.195	31.243
Jan-16	60,146	1,749,716	29.091	1.6%	771,068	22,991,731	29.818		31.129	31.185
Feb-16	60,017	1,738,377	28.965	6.8%	765,763	22,957,991	29.981		31.062	31.128
Mar-16	60,007	1,920,716	32.008	5.5%	760,591	22,901,882	30.111		31.000	31.074
Apr-16	59,837	1,778,652	29.725	1.0%	755,707	22,775,730	30.138		30.934	31.017
May-16	59,314	1,805,002	30.431	2.9%	750,424	22,669,538	30.209		30.871	30.962
Jun-16	59,091	1,827,852	30.933	3.3%	744,394	22,548,232	30.291	2.9%	30.805	30.904
Jul-16	58,874	1,758,480	29.869	0.6%	738,436	22,381,195	30.309	2.8%	30.742	30.849
Aug-16	58,734	1,856,125	31.602	7.0%	732,652	22,332,380	30.482	3.2%	30.676	30.792
Sep-16	58,673	1,812,828	30.897	4.3%	727,188	22,244,533	30.590	3.4%	30.611	30.736
Oct-16	58,843	1,844,980	31.354	2.3%	721,939	22,125,124	30.647	3.6%	30.548	30.681
Nov-16	58,834	1,848,567	31.420	6.6%	716,671	22,084,431	30.815	3.7%	30.483	30.624
Dec-16	58,349	1,974,339	33.837	1.5%	710,719	21,915,634	30.836	3.6%	30.420	30.569
Jan-17	59,709	1,785,103	29.897	2.8%	710,282	21,951,021	30.905	3.6%	30.355	30.513
Feb-17	59,577	1,593,806	26.752	-7.6%	709,842	21,806,450	30.720	2.5%	30.291	30.457
Mar-17	59,382	1,818,727	30.628	-4.3%	709,217	21,704,461	30.603	1.6%	30.232	30.406
Apr-17	59,297	1,675,216	28.251	-5.0%	708,677	21,601,025	30.481	1.1%	30.168	30.350
May-17	59,362	1,824,942	30.743	1.0%	708,725	21,620,965	30.507	1.0%	30.106	30.296
Jun-17	59,379	1,732,200	29.172	-5.7%	709,013	21,525,313	30.360	0.2%	30.042	30.240
Jul-17	59,380	1,710,948	28.814	-3.5%	709,519	21,477,781	30.271	-0.1%	29.980	30.186
Aug-17	59,336	1,815,032	30.589	-3.2%	710,121	21,436,688	30.187	-1.0%	29.916	30.130
Sep-17	58,768	1,649,240	28.064	-9.2%	710,216	21,273,100	29.953	-2.1%	29.852	30.075
Oct-17	58,735	1,813,389	30.874	-1.5%	710,108	21,241,509	29.913	-2.4%	29.791	30.021
Nov-17	58,865	1,790,357	30.415	-3.2%	710,139	21,183,299	29.830	-3.2%	29.728	29.966
Dec-17	58,792	1,822,546	31.000	-8.4%	710,582	21,031,506	29.598	-4.0%	29.666	29.912
Jan-18	56,813	1,719,267	30.262	1.2%	707,686	20,965,670	29.626	-4.1%	29.603	29.857
Feb-18	56,466	1,526,852	27.040	1.1%	704,575	20,898,716	29.661	-3.4%	29.540	29.802
Mar-18	56,313	1,717,799	30.504	-0.4%	701,506	20,797,788	29.647	-3.1%	29.483	29.752
Apr-18	56,488	1,658,420	29.359	3.9%	698,697	20,780,992	29.742	-2.4%	29.421	29.697
May-18	56,688	1,748,116	30.837	0.3%	696,023	20,704,166	29.746	-2.5%	29.360	29.644
Jun-18	56,666	1,643,038	28.995	-0.6%	693,310	20,615,004	29.734	-2.1%	29.298	29.590

Exponential Trend: -2.5% -2.2%



Regressions

 24 Months on Monthly

 1.000
 572.641

 0.000
 2.132

 0.080
 0.051

1.913

22.000

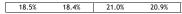
24 Months	on Annual
1.000	388.867
0.000	0.310
0.756	0.007
67.985	22.000

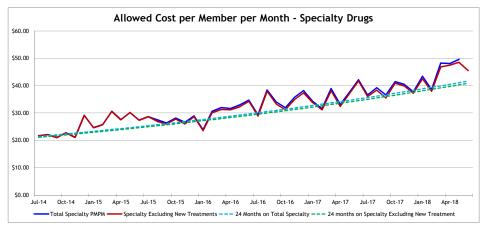
#### PHARMACY TREND DEVELOPMENT - SPECIALTY TREND CALCULATION

												EXPONENTIAL FIT		EXPONENTIAL FIT	
		MONTHLY	/ DATA - C	ON	TRACT ADJUS	STED	)		PMPM	Rolling	12 PMPM	Rolling	12 PMPM	Moi	nthly
				-	All Other						Specialty		Specialty		Specialty
					Specialty	Tot	al Specialty	Total	Specialty	Total	Excluding		Excluding		Excluding
Incurred		New Tr	eatment1		Allowed	Dr	ug Allowed	Specialty	Excluding New	Specialty	New	Total	New	Total	New
Date	Members	Allowed	d Charges		Charges		Charges	PMPM	Treatments	PMPM	Treatments	Specialty	Treatments	Specialty	Treatments
Jul-14	68,855	\$		\$	1,494,118	\$	1,494,118	\$21.70	\$21.70			\$21.42	\$21.11	\$21.86	\$21.52
Aug-14	68,711	\$		\$	1,518,675	\$	1,518,675	\$22.10	\$22.10			\$21.73	\$21.41	\$22.22	\$21.87
Sep-14	68,611	Ś		\$	1,438,489	\$	1,438,489	\$20.97	\$20.97			\$22.05	\$21.72	\$22.58	\$22.23
Oct-14	66,404	\$		\$	1,510,102		1,510,102	\$22.74	\$22.74			\$22.36	\$22.03	\$22.94	\$22.58
Nov-14	66,484	\$		\$	1,404,086	Ś	1,404,086	\$21.12	\$21.12			\$22.68	\$22.34	\$23.31	\$22.95
Dec-14	66,505	\$		\$		Š	1,936,975	\$29.13	\$29.13			\$23.00	\$22.66	\$23.68	\$23.31
Jan-15	65,209	Š		\$	1,605,559	\$	1,605,559	\$24.62	\$24.62			\$23.34	\$22.98	\$24.07	\$23.68
Feb-15	65,322	Ś		\$	1,680,098	\$	1,680,098	\$25.72	\$25.72			\$23.68	\$23.31	\$24.46	\$24.07
Mar-15	65,179	Š		Š	1,994,301	\$	1,994,301	\$30.60	\$30.60			\$23.99	\$23.62	\$24.82	\$24.42
Apr-15	64,721	\$		\$	1,781,909	\$	1,781,909	\$27.53	\$27.53			\$24.34	\$23.96	\$25.23	\$24.82
May-15	64,597	Ś		\$	1,950,108	\$	1,950,108	\$30.19	\$30.19			\$24.68	\$24.29	\$25.63	\$25.21
Jun-15	65,121	\$		\$	1,783,583		1,783,583	\$27.39	\$27.39	\$25.26	\$25.26	\$25.04	\$24.64	\$26.04	\$25.62
Jul-15	64,832	\$		\$	1,856,753	\$	1,856,753	\$28.64	\$28.64	\$25.84	\$25.84	\$25.39	\$24.99	\$26.46	\$26.02
Aug-15	64,518	\$	39,587			\$	1,774,883	\$27.51	\$26.90	\$26.31	\$26.26	\$25.76	\$25.35	\$26.89	\$26.44
Sep-15	64,137	\$	20,895	\$	1,666,799	\$	1,687,694	\$26.31	\$25.99	\$26.78	\$26.70	\$26.13	\$25.71	\$27.33	\$26.87
Oct-15	64,092	\$	20,894	\$	1,780,121	\$	1,801,015	\$28.10	\$27.77	\$27.23	\$27.12	\$26.50	\$26.07	\$27.76	\$27.29
Nov-15	64,102	\$	40,715	\$	1,663,213	\$	1,703,928	\$26.58	\$25.95	\$27.70	\$27.54	\$26.88	\$26.45	\$28.21	\$27.74
Dec-15	64,301	\$	19,814	\$	1,842,866	\$	1,862,680	\$28.97	\$28.66	\$27.68	\$27.50	\$27.26	\$26.82	\$28.66	\$28.17
Jan-16	60,146	\$	20,906	\$	1,413,687	\$	1,434,594	\$23.85	\$23.50	\$27.64	\$27.43	\$27.66	\$27.21	\$29.13	\$28.63
Feb-16	60,017	\$	30,818	\$	1,808,719	\$	1,839,537	\$30.65	\$30.14	\$28.04	\$27.79	\$28.06	\$27.60	\$29.60	\$29.09
Mar-16	60,007	\$	41,759	\$	1,877,629	\$	1,919,389	\$31.99	\$31.29	\$28.13	\$27.82	\$28.44	\$27.97	\$30.05	\$29.54
Apr-16	59,837	\$	27,406	\$	1,865,008	\$	1,892,415	\$31.63	\$31.17	\$28.46	\$28.11	\$28.85	\$28.38	\$30.55	\$30.02
May-16	59,314	\$	42,850	\$	1,911,230	\$	1,954,080	\$32.94	\$32.22	\$28.66	\$28.26	\$29.26	\$28.77	\$31.03	\$30.49
Jun-16	59,091	\$	25,309	\$	2,023,181	\$	2,048,490	\$34.67	\$34.24	\$29.25	\$28.81	\$29.68	\$29.19	\$31.53	\$30.98
Jul-16	58,874	\$	25,300	\$	1,701,992	\$	1,727,292	\$29.34	\$28.91	\$29.31	\$28.83	\$30.10	\$29.59	\$32.03	\$31.47
Aug-16	58,734	\$	26,465	\$	2,230,676	\$	2,257,141	\$38.43	\$37.98	\$30.20	\$29.73	\$30.54	\$30.02	\$32.56	\$31.98
Sep-16	58,673	\$	44,093	\$		\$	1,996,115	\$34.02	\$33.27	\$30.85	\$30.35	\$30.98	\$30.46	\$33.09	\$32.50
Oct-16	58,843	\$	45,204		1,833,886	\$	1,879,090	\$31.93	\$31.17	\$31.19	\$30.65	\$31.42	\$30.88	\$33.61	\$33.01
Nov-16	58,834	\$	46,239	\$	2,055,519	\$	2,101,758	\$35.72	\$34.94	\$31.97	\$31.42	\$31.88	\$31.33	\$34.16	\$33.55
Dec-16	58,349	\$	48,510			\$	2,228,162	\$38.19	\$37.36	\$32.75	\$32.16	\$32.32	\$31.76	\$34.70	\$34.07
Jan-17	59,709	\$	28,751		2,016,904	\$	2,045,655	\$34.26	\$33.78	\$33.63	\$33.02	\$32.79	\$32.22	\$35.27	\$34.63
Feb-17	59,577	\$		\$	1,856,507	\$	1,881,972	\$31.59	\$31.16	\$33.71	\$33.11	\$33.27	\$32.69	\$35.84	\$35.19
Mar-17	59,382	\$	48,539	\$	2,264,526	\$	2,313,066	\$38.95	\$38.13	\$34.30	\$33.69	\$33.71	\$33.11	\$36.37	\$35.70
Apr-17	59,297	\$	46,875		1,920,327		1,967,202	\$33.18	\$32.38	\$34.43	\$33.79	\$34.20	\$33.59	\$36.97	\$36.28
May-17	59,362	\$	29,936	\$	2,198,641	\$	2,228,577	\$37.54	\$37.04	\$34.82	\$34.19	\$34.68	\$34.06	\$37.55	\$36.85
Jun-17	59,379	\$	27,103		2,476,825	\$	2,503,927	\$42.17	\$41.71	\$35.44	\$34.82	\$35.18	\$34.55	\$38.16	\$37.45
Jul-17	59,380	\$	34,911	\$	2,139,489	\$	2,174,400	\$36.62	\$36.03	\$36.05	\$35.41	\$35.67	\$35.03	\$38.77	\$38.04
Aug-17	59,336	\$	52,855	\$	2,275,795	\$	2,328,651	\$39.25	\$38.35	\$36.12	\$35.44	\$36.19	\$35.54	\$39.40	\$38.66
Sep-17	58,768	\$	63,999		2,087,302	\$	2,151,301	\$36.61	\$35.52	\$36.33	\$35.63	\$36.72	\$36.05	\$40.04	\$39.29
Oct-17	58,735	\$	34,267	\$	2,401,820	\$	2,436,087	\$41.48	\$40.89	\$37.12	\$36.44	\$37.24	\$36.56	\$40.68	\$39.90
Nov-17	58,865 58,792	\$ \$		\$	2,346,956	\$	2,383,563 2,220,020	\$40.49	\$39.87	\$37.52 \$37.48	\$36.84	\$37.78 \$38.31	\$37.08	\$41.34	\$40.55 \$41.19
Dec-17	56,813	\$	33,211		2,186,808	\$	2,220,020	\$37.76 \$43.46	\$37.20 \$42.50	\$37.48	\$36.83 \$37.54	\$38.31	\$37.60 \$38.14	\$41.99 \$42.68	\$41.19 \$41.86
Jan-18 Feb-18	56,466	\$ \$	54,858 33,337	\$ \$	2,414,418 2,142,864	\$ \$	2,469,275	\$43.46	\$42.50 \$37.95	\$38.23 \$38.82	\$37.54 \$38.12	\$38.86	\$38.14	\$42.68 \$43.38	\$41.86 \$42.54
Mar-18	56,313	\$	78,763	\$	2,142,864	\$ \$	2,715,569	\$48.22	\$46.82	\$39.56	\$38.81	\$39.43	\$39.20	\$43.36 \$44.02	\$43.16
Mar-16 Apr-18	56,488	\$	33,259	\$	2,630,606	\$	2,715,369	\$48.22	\$47.50	\$40.80	\$40.06	\$40.53	\$39.20	\$44.02	\$43.16
May-18	56,688	\$	59,403		2,750,198	\$ \$	2,809,601	\$49.56	\$47.50 \$48.51	\$40.80	\$40.06 \$41.01	\$40.53 \$41.10	\$40.32	\$44.73 \$45.44	\$43.66 \$44.55
Jun-18	56,666	\$ \$	58,320		2,750,196		2,637,687	\$49.56	\$45.52	\$41.79	\$41.01	\$41.10	\$40.32	\$45.44	\$44.55 \$45.27
Juli-16	30,000	)	30,320	Ş	4,3/9,36/	ş	2,037,007	340.JJ	<b>⊅43.3</b> 4	344.14	<b>⊅41.3</b> ∠	341.07	340.70	<b>≯40.10</b>	Ş4J.∠/









Regressions	

24 Months on	Rolling 12	24 Months on	Rolling 12	24 Months on	Monthly	24 Months on	Monthly
1.0004655	7.56552E-08	1.00046237	8.48273E-08	1.000522795	7.02784E-09	1.000519694	7.87741E-09
1.326E-05	0.569012304	1.29801E-05	0.556887361	8.05605E-05	3.456287666	8.08706E-05	3.469592107
98.24%	0.013675968	98.29%	0.01338455	65.67%	0.083070397	65.23%	0.083390164
1231,1074	22	1268.295228	22	42.09121275	22	41.27511207	22

PHARMACY TREND DEVELOPMENT - SPECIALTY TREND CALCULATION

#### Restated Specialty Drug Trend

Pharmacy Specialty Claims in the Experience	A	\$ 29,744,082
Claims Removed from the Experience		
PCSK9 Inhibitors <sup>1</sup>	B1	\$160,676
Orkambi	B2	\$388,607
MS <sup>2</sup>	В3	\$648,493
Total	B = B1+B2+B3	\$1,197,776
Pharmacy Specialty Claims without Excluded Drugs in the Experience	C = A - B	\$28,546,306
Projected Specialty Claims using a 18.4% Trend for 30 months	$D = C \times (1.184)^{(30^{12})}$	\$43,525,331
Adding Incremental Cost of Excluded Treatments for the Projection Period		
PCSK9 Inhibitors	E1	\$269,351
Orkambi	E2	\$388,607
Ocrevus	E3	\$798,000
Total	E = E1+E2+E3	\$1,455,958
Restated Projected Specialty Claims	F = D + E	\$44,981,289
Restated Specialty Trend	G = (F/A)^(12/30) -1	18.0%

PCSK9 inhibitors in the formulary include Praluent, which was approved by the FDA on July 24, 2015, and Repatha, which was approved by the FDA on August 27, 2015.
 Removes cost of drugs for members expected to move to Ocrevus.

# PHARMACY TREND DEVELOPMENT SUMMARY

					Vaccines, Over the			
		Generic	Brands Going Generic	Brand	Counter, Compounds	Non-Specialty Total	Specialty	Total Pharmacy
Experience Period Member Months	m							693,310
Experience Period Days Supply	a	18,057,244	397,846	1,605,556	554,358	20,615,004	149,991	20,764,995
Experience Period Allowed Charge per Supply	b	\$0.72	\$9.89	\$12.88	\$2.22		\$198.31	
Experience Period Total Allowed Charges	c = a x b	\$12,927,346	\$3,933,381	\$20,680,977	\$1,229,357	\$38,771,060	\$29,744,082	\$68,515,142
Experience Period PMPM	d = c / m	\$18.65	\$5.67	\$29.83	\$1.77	\$55.92	\$42.90	\$98.82
Utilization Trend	e	0.0%	0.0%	0.0%	0.0%	0.0%		
Calculated Annual Trend	f	3.5%	3.5%	5.9%	5.9%			
Impact on Cost of Brands going Generic	g	1.0000	0.2213	1.0000	1.0000			
Projected Allowed Charge per Supply	h=b x ((1+e)x (1+f)^(30/12)) x g	\$0.78	\$2.38	\$14.85	\$2.56			
Projected Total Allowed Charges before Contract Changes	i = h x a	\$14,075,001	\$947,772	\$23,845,424	\$1,417,464	\$40,285,660	\$44,981,289	\$85,266,949
Projection Period PMPM	j = i / m	\$20.30	\$1.37	\$34.39	\$2.04	\$58.11	\$64.88	\$122.99
Annual Trend before Contract Changes	k = (j/d)^(12/30)-1	3.5%	-43.4%	5.9%	5.9%	1.5%	18.0%	9.1%
Reduction of Projected Claims due to Contract Changes	n	0.8793	0.8793	0.9983	1.0000		0.9822	
Projected Total Allowed Charges after Contract Changes	o = n x i	\$12,376,252	\$833,383	\$23,805,511	\$1,417,464	\$38,432,609	\$44,179,359	\$82,611,969
Projected PMPM after Contract Changes	g = 0 / m	\$17.85	\$1.20	\$34.34	\$2.04	\$55.43	\$63.72	\$119.16
Impact of Contract Changes on Projected Pharmacy PMPM	r = q / j	Ţ1710S	Ţ1125	7- 110 1	72.01	4-2-15	T/-E	0.9689
Effective Annual Trend	s = (q/d)^(12/30)-1							7.8%

## Vermont Freedom Plan (VFP), Comprehensive (COMP), and Indemnity J-Plan (JPLAN)

				In-Networ	k Benefits				Out-	of-Network Ben	efits	Relativity Factor
index	Product	Deductible	Coinsurance	Out-of- Pocket	Office Copay	Specialist Copay	ER <sup>1</sup> Copay	AMB Copay	Deductible	Coinsurance	Out-of- Pocket	Active
1	COMP	\$3,000	0%	\$3,000								0.7827
2	COMP	\$5,000	40%	\$6,500								0.6314
3	COMP	\$7,350	0%	\$7,350								0.6017
4	JPLAN	\$100	20%	\$500	\$10	\$10						1.2021
5	VFP	\$1,000	0%	\$2,000	\$30	\$50	\$150		\$2,000	30%	\$4,000	0.9771
6	VFP	\$1,000	0%	\$2,350	\$25	\$25	\$50	\$50	\$2,000	30%	\$3,500	1.0040
7	VFP	\$1,000	20%	\$2,300	\$20	\$20	\$100		\$2,000	30%	\$4,600	0.9421
8	VFP	\$1,000	20%	\$3,500	\$25	\$40			\$2,000	30%	\$7,000	0.8732
9	VFP	\$1,500	20%	\$3,000	\$25	\$45	\$250	\$250	\$3,000	30%	\$6,000	0.8821
10	VFP	\$200	20%	\$800	\$20	\$20			\$400	30%	\$1,600	1.0781
11	VFP	\$2,500	0%	\$2,500	\$20	\$30	\$200		\$5,000	30%	\$5,000	0.8978
12	VFP	\$2,500	20%	\$5,000	\$20	\$20			\$5,000	30%	\$10,000	0.7884
13	VFP	\$2,500	20%	\$5,150	\$20	\$40			\$5,000	30%	\$10,300	0.7669
14	VFP	\$300	10%	\$1,300	\$10	\$30	\$100	\$50	\$600	30%	\$2,600	1.0597
15	VFP	\$3,000	0%	\$4,000	\$30	\$50	\$150		\$6,000	30%	\$8,000	0.8337
16	VFP	\$3,000	20%	\$5,850	\$40	\$40	\$150		\$6,000	30%	\$11,700	0.7624
17	VFP	\$4,000	0%	\$5,000	\$30	\$50	\$150		\$8,000	30%	\$10,000	0.7884
18	VFP	\$4,000	20%	\$6,000	\$40	\$40	\$150		\$8,000	30%	\$12,000	0.7389
19	VFP	\$500	20%	\$1,500	\$20	\$20			\$1,000	30%	\$3,000	0.9985
20	VFP	\$500	20%	\$1,500	\$20	\$40	\$250	\$250	\$1,000	30%	\$3,000	1.0001
21	VFP	\$500	20%	\$1,750	\$20	\$20			\$1,000	30%	\$3,500	0.9855
22	VFP	\$5,000	0%	\$5,000	\$25	\$25			\$10,000	30%	\$10,000	0.7319
23	VFP	\$5,000	0%	\$5,000	\$25	\$25			\$10,000	30%	\$15,000	0.7317
24	VFP	\$5,000	0%	\$5,000	\$30	\$60			\$10,000	0%	\$10,000	0.7206

<sup>1.</sup> ER Copay: the displayed member copay goes toward the facility allowed charges. Associated physician and ancillary charges are then covered at 100%.

 $<sup>2.\ \</sup>mbox{The J Plan}$  deductible applies only to infusion therapy, DME and prosthetics ambulance.

## Vermont Health Partnership (VHP) Medical Plans

				VHP In-	Network I	Benefits			VHP (	Relativity Factor		
index	Product	IP	OP	PCP	SCP	ER	AMB	ООРМ	Deductible	Coinsurance	Out-of-Pocket	Active
1	VHP <sup>1</sup>	\$0	\$0	\$10	\$20	\$50	\$50	\$7,900	\$500	30%	\$14,700	1.1269
2	VHP <sup>1</sup>	\$250	\$100	\$15	\$25	\$50	\$50	\$7,900	\$500	30%	\$14,700	1.1105
3	VHP <sup>1</sup>	\$250	\$125	\$20	\$40	\$150	\$0	\$7,900	\$500	30%	\$14,700	1.0834
4	VHP <sup>1</sup>	\$250	\$250	\$20	\$20	\$200	\$100	\$7,900	\$1,000	30%	\$14,700	1.0936
5	VHP <sup>1</sup>	\$500	\$250	\$20	\$30	\$100	\$0	\$7,900	\$500	30%	\$14,700	1.0893
6	VHP <sup>1</sup>	\$750	\$750	\$20	\$30	\$50	\$50	\$7,900	\$500	30%	\$14,700	1.0737

PCP	Primary Care Physician Copay
SCP	Specialist Physician Copay
IP	Inpatient Care Deductible (max of 3/yr per family)
OP	Outpatient Surgery Copay
ER	Emergency Room Copay
AMB	Ambulance Copay
OOPM	Per ACA, all copays accumulate toward the Out of Pocket Maximum

- 1. All VHP Plans have a DME rider benefit of: \$100 deductible, 20% coinsurance, built into the relativity.
- ER Copay: the displayed member copay goes toward the facility allowed charges.
   Associated physician and ancillary charges are the covered at 100%.

## BCBSVT Indemnity Consumer Driven Health Plans (CDHP's)

					In-Network				Relativity Factor
index	Product	Deductible	Coinsurance	Out-of-Pocket	RX OOPM	Wellness Rx <sup>1</sup>	Drugs After	Diabetic	Active
					Limit <sup>3</sup>		Deductible <sup>2</sup>	Supplies	
1	CDHP	\$1,500	0%	\$1,500	\$1,350	0%	N/A	SAAO	1.1240
2	CDHP	\$1,500	0%	\$1,500	\$1,350	N/A	N/A	SAAO	1.1166
3	CDHP	\$1,500	20%	\$2,500	\$1,350	N/A	N/A	SAAO	1.0358
4	CDHP	\$2,000	0%	\$2,000	\$1,350	N/A	N/A	SAAO	1.0534
5	CDHP	\$2,000	20%	\$4,000	\$1,350	N/A	N/A	SAAO	0.9522
6	CDHP	\$2,500	0%	\$2,500	\$1,350	0%	N/A	SAAO	1.0135
7	CDHP	\$2,500	0%	\$2,500	\$1,350	\$10/\$30/\$50	N/A	SAAO	1.0091
8	CDHP	\$2,500	0%	\$2,500	\$1,350	N/A	N/A	SAAO	1.0024
9	CDHP	\$2,500	0%	\$3,500	\$1,350	0%	\$10/\$30/\$50	SAAO	1.0065
10	CDHP	\$2,500	20%	\$3,500	\$1,350	N/A	N/A	SAAO	0.9443
11	CDHP	\$2,500	20%	\$5,000	\$1,350	0%	N/A	SAAO	0.9168
12	CDHP	\$2,600	0%	\$2,600	\$1,350	0%	N/A	SAAO	1.0046
13	CDHP	\$2,600	20%	\$5,000	\$1,350	0%	N/A	SAAO	0.9124
14	CDHP	\$3,000	0%	\$3,000	\$1,350	N/A	\$10/\$35/\$50	SAAO	0.9600
15	CDHP	\$3,000	0%	\$3,000	\$1,350	0%	N/A	SAAO	0.9725
16	CDHP	\$3,000	0%	\$3,000	\$1,350	N/A	N/A	SAAO	0.9600
17	CDHP	\$3,000	20%	\$5,000	\$1,350	0%	N/A	SAAO	0.8963
18	CDHP	\$3,500	0%	\$3,500	\$1,350	0%	N/A	SAAO	0.9377
19	CDHP	\$4,000	0%	\$4,000	\$1,350	0%	N/A	SAAO	0.9077
20	CDHP	\$5,000	0%	\$5,000	\$1,350	0%	N/A	SAAO	0.8583
21	CDHP	\$6,000	0%	\$6,000	\$1,350	0%	N/A	SAAO	0.8190
22	CDHP	\$6,450	0%	\$6,450	\$1,350	N/A	N/A	SAAO	0.7875
23	CDHP	\$6,550	0%	\$6,550	\$1,350	0%	N/A	SAAO	0.8005
24	CDHP	\$6,550	0%	\$6,550	\$1,350	N/A	N/A	SAAO	0.7842
25	CDHP	\$6,650	0%	\$6,650	\$1,350	0%	N/A	SAAO	0.7974
26	CDHP	\$6,650	0%	\$6,650	\$1,350	N/A	N/A	SAAO	0.7810
27	CDHP	\$6,850	0%	\$6,850	\$1,350	0%	N/A	SAAO	0.7912
28	CDHP	\$7,150	0%	\$7,150	\$1,350	0%	N/A	SAAO	0.7823
29	CDHP	\$7,150	0%	\$7,150	\$1,350	N/A	N/A	SAAO	0.7657
30	CDHP	\$7,350	0%	\$7,350	\$1,350	0%	N/A	SAAO	0.7766

Wellness Rx: if applicable, cost sharing rules apply before the deductible is satisfied.
 The member's cost share for Wellness Rx accumulates toward the Out-of-Pocket Maximum.

<sup>2.</sup> All other drugs are subject to deductible. Once the deductible is met, drugs are subject to the Drugs After Deductible cost share until the Out-of-Pocket Maximum is met.

<sup>3.</sup> The Rx OOPM Limit is as described in Vermont Act 171.

#### **Prescription Drug Cards**

					Copay (\$) /	Coinsurance	(%)				Relativity
Index	Туре	Deductible	Retail Generic	Retail Preferred Brand	Retail Non- Preferred Brand	Mail Order Generic	Mail Order Preferred Brand	Mail Order Non- Preferred Brand	ООРМ	Diabetic Supplies	Active
1	CM1	\$100	\$5	40%	60%	\$10	40%	60%	\$1,350	SAAO	0.1810
2	CM2	\$0	\$5	\$50	50%	\$10	\$100	50%	\$1,350	SAAO	0.2146
3	COI	\$0	50%	50%	50%	50%	50%	50%	\$1,350	SAAO	0.1703
4	COP	\$0	\$10	\$20	\$40	\$20	\$40	\$80	\$1,350	SAAO	0.2698
5	COP	\$0	\$10	\$25	\$50	\$20	\$50	\$100	\$1,350	SAAO	0.2342
6	COP	\$0	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	SAAO	0.2161
7	COP	\$0	\$10	\$30	\$60	\$20	\$60	\$120	\$1,350	SAAO	0.2156
8	COP	\$0	\$10	\$35	\$60	\$20	\$70	\$120	\$1,350	SAAO	0.2123
9	COP	\$0	\$15	\$25	\$40	\$30	\$50	\$80	\$1,350	SAAO	0.2623
10	COP	\$0	\$15	\$30	\$45	\$30	\$60	\$90	\$1,350	SAAO	0.2273
11	COP	\$0	\$15	\$35	\$50	\$30	\$70	\$100	\$1,350	SAAO	0.2091
12	COP	\$0	\$20	\$40	\$60	\$40	\$80	\$120	\$1,350	SAAO	0.2036
13	COP	\$0	\$20	\$40	\$80	\$40	\$80	\$160	\$1,350	SAAO	0.2028
14	COP	\$0	\$25	\$50	\$75	\$50	\$100	\$150	\$1,350	SAAO	0.1962
15	COP	\$0	\$5	\$15	\$30	\$10	\$30	\$60	\$1,350	SAAO	0.2820
16	COP	\$0	\$5	\$30	\$50	\$10	\$60	\$100	\$1,350	SAAO	0.2231
17	COP	\$100	\$10	\$15	\$30	\$20	\$30	\$60	\$1,350	SAAO	0.2611
18	COP	\$100	\$10	\$25	\$45	\$20	\$50	\$90	\$1,350	SAAO	0.2234
19	COP	\$100	\$10	\$30	\$45	\$20	\$60	\$90	\$1,350	SAAO	0.2057
20	COP	\$100	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	100%	0.2101
21	COP	\$100	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	SAAO	0.2054
22	COP	\$100	\$10	\$40	\$60	\$20	\$80	\$120	\$1,350	SAAO	0.2007
23	COP	\$100	\$15	\$30	\$45	\$30	\$60	\$90	\$1,350	SAAO	0.2179
24	COP	\$100	\$5	\$20	\$40	\$10	\$40	\$80	\$1,350	SAAO	0.2315
25	COP	\$150	\$20	\$80	\$100	\$40	\$160	\$200	\$1,350	SAAO	0.1838
26	COP	\$50	\$10	\$20	\$35	\$20	\$40	\$70	\$1,350	SAAO	0.2643
27	COP	\$50	\$10	\$25	\$50	\$20	\$50	\$100	\$1,350	SAAO	0.2284
28	COP	\$50	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	SAAO	0.2105
29	COP	\$50	\$5	\$10	\$25	\$10	\$20	\$50	\$1,350	SAAO	0.2770

<sup>\*</sup> Type: COI = coinsurance; COP = copay; CM1 = combined (COP/COI/COI); CM2 = combined (COP/COP/COI) \* Diabetic: If "100%" then Diabetic medications and supplies are covered at 100% of allowed charges;

 $If \ "SAAO" \ then \ Diabetic \ medications \ and \ supplies \ are \ subject \ to \ cost \ sharing \ same \ as \ any \ other \ prescription \ drug.$ 

## Vermont Freedom Plan (VFP), Comprehensive (COMP), and Indemnity J-Plan (JPLAN)

		In-Network Benefits Out-of									of-Network Benefits		
index	Product	Deductible	Coinsurance	Out-of- Pocket	Office Copay	Specialist Copay	ER <sup>1</sup> Copay	AMB Copay	Deductible	Coinsurance	Out-of- Pocket	Leverage Factor	
1	VFP	\$1,000	0%	\$2,000	\$30	\$50	\$150		\$2,000	30%	\$4,000	1.0045	
2	VFP	\$1,000	0%	\$2,350	\$25	\$25	\$50	\$50	\$2,000	30%	\$3,500	1.0040	
3	VFP	\$1,000	20%	\$2,300	\$20	\$20	\$100		\$2,000	30%	\$4,600	1.0051	
4	VFP	\$1,000	20%	\$3,500	\$25	\$40			\$2,000	30%	\$7,000	1.0065	
5	VFP	\$1,500	20%	\$3,000	\$25	\$45	\$250	\$250	\$3,000	30%	\$6,000	1.0063	
6	VFP	\$200	20%	\$800	\$20	\$20			\$400	30%	\$1,600	1.0028	
7	VFP	\$2,500	0%	\$2,500	\$20	\$30	\$200		\$5,000	30%	\$5,000	1.0060	
8	VFP	\$2,500	20%	\$5,000	\$20	\$20			\$5,000	30%	\$10,000	1.0084	
9	VFP	\$2,500	20%	\$5,150	\$20	\$40			\$5,000	30%	\$10,300	1.0089	
10	VFP	\$300	10%	\$1,300	\$10	\$30	\$100	\$50	\$600	30%	\$2,600	1.0031	
11	COMP	\$3,000	0%	\$3,000								1.0087	
13	JPLAN <sup>2</sup>	\$100	20%	\$7,900	\$10	\$10						1.0009	

- 1. ER Copay: the displayed member copay goes toward the facility allowed charges. Associated physician and ancillary charges are the covered at 100%.
- 2. The J Plan deductible applies only to infusion therapy, DME and prosthetics ambulance.

#### Vermont Health Partnership (VHP) Medical Plans

				VHP In-N	etwork Bene							
index	Product	Inpatient Care Deductible <sup>2</sup>	Outpatient Surgery Copay	Office Copay	Specialist Copay	ER <sup>3</sup> Copay	AMB Copay	Out-of- Pocket	Deductible	Coinsurance	Out-of- Pocket	Leverage Factor
1	VHP <sup>1</sup>	\$0	\$0	\$10	\$20	\$50	\$50	\$7,900	\$500	30%	\$14,700	1.0011
2	VHP <sup>1</sup>	\$250	\$100	\$15	\$25	\$50	\$50	\$7,900	\$500	30%	\$14,700	1.0014
3	VHP <sup>1</sup>	\$250	\$125	\$20	\$40	\$150	\$0	\$7,900	\$500	30%	\$14,700	1.0018
4	VHP <sup>1</sup>	\$250	\$250	\$20	\$20	\$200	\$100	\$7,900	\$1,000	30%	\$14,700	1.0016

- 1. All VHP Plans have a DME rider benefit of: \$100 deductible, 20% coinsurance, built into the relativity.
- 2. Maximum of 3/yr per family
- 3. ER Copay: the displayed member copay goes toward the facility allowed charges. Associated physician and ancillary charges are then covered at 100%.

#### BCBSVT Comprehensive Consumer Driven Health Plans (CDHP's)

					Leverage Factor					
index	Product	Deductible	Coinsurance	Out-of- Pocket	RX OOPM Limit <sup>3</sup>	Wellness Rx <sup>1</sup>	Drugs After Deductible <sup>2</sup>	Diabetic Supplies	Medical	Rx
1	CDHP	\$1,500	0%	\$1,500	\$1,350	0%	N/A	SAAO	1.0053	1.0052
2	CDHP	\$2,500	20%	\$3,500	\$1,350	N/A	N/A	SAAO	1.0086	1.0109
3	CDHP	\$3,000	0%	\$3,000	\$1,350	0%	N/A	SAAO	1.0083	1.0065
4	CDHP	\$5,000	0%	\$5,000	\$1,350	0%	N/A	SAAO	1.0112	1.0071
5	CDHP	\$6,450	0%	\$6,450	\$1,350	N/A	N/A	SAAO	1.0126	1.0121
6	CDHP	\$7,150	0%	\$7,150	\$1,350	N/A	N/A	SAAO	1.0133	1.0122

- Wellness Rx: if applicable, cost sharing rules apply before the deductible is satisfied.
   The member's cost share for Wellness Rx accumulates toward the Out-of-Pocket Maximum.
- 2. All other drugs are subject to deductible. Once the deductible is met, drugs are subject to the Drugs After Deductible cost share until the Out-of-Pocket Maximum is met.
- 3. The Rx OOPM Limit is as described in Vermont Act 171.

#### **Prescription Drug Cards**

Copay (\$) / Coinsurance (%)											
Index	Туре	Deductible	Retail Generic	Retail Preferred Brand	Retail Non- Preferred Brand	Mail Order Generic	Mail Order Preferred Brand	Mail Order Non- Preferred Brand	ООРМ	Diabetic Supplies	Leverage Factor
1	CM1	\$100	\$5	40%	60%	\$10	40%	60%	\$1,350	SAAO	1.0091
2	CM2	\$0	\$5	\$50	50%	\$10	\$100	50%	\$1,350	SAAO	1.0061
3	COI	\$0	50%	50%	50%	50%	50%	50%	\$1,350	SAAO	1.0108
4	COP	\$0	\$10	\$20	\$40	\$20	\$40	\$80	\$1,350	SAAO	1.0052
5	COP	\$0	\$10	\$25	\$50	\$20	\$50	\$100	\$1,350	SAAO	1.0058
6	COP	\$0	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	SAAO	1.0062
7	COP	\$0	\$10	\$30	\$60	\$20	\$60	\$120	\$1,350	SAAO	1.0062
8	COP	\$0	\$10	\$35	\$60	\$20	\$70	\$120	\$1,350	SAAO	1.0064
9	COP	\$0	\$15	\$25	\$40	\$30	\$50	\$80	\$1,350	SAAO	1.0060
10	COP	\$0	\$15	\$30	\$45	\$30	\$60	\$90	\$1,350	SAAO	1.0066
11	COP	\$0	\$15	\$35	\$50	\$30	\$70	\$100	\$1,350	SAAO	1.0071
12	COP	\$0	\$20	\$40	\$60	\$40	\$80	\$120	\$1,350	SAAO	1.0078
13	COP	\$0	\$20	\$40	\$80	\$40	\$80	\$160	\$1,350	SAAO	1.0079
14	COP	\$0	\$25	\$50	\$75	\$50	\$100	\$150	\$1,350	SAAO	1.0086
15	COP	\$0	\$5	\$15	\$30	\$10	\$30	\$60	\$1,350	SAAO	1.0039
16	COP	\$0	\$5	\$30	\$50	\$10	\$60	\$100	\$1,350	SAAO	1.0051
17	COP	\$100	\$10	\$15	\$30	\$20	\$30	\$60	\$1,350	SAAO	1.0061
18	COP	\$100	\$10	\$25	\$45	\$20	\$50	\$90	\$1,350	SAAO	1.0071
19	COP	\$100	\$10	\$30	\$45	\$20	\$60	\$90	\$1,350	SAAO	1.0075
20	COP	\$100	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	100%	1.0070
21	COP	\$100	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	SAAO	1.0076
22	COP	\$100	\$10	\$40	\$60	\$20	\$80	\$120	\$1,350	SAAO	1.0080
23	COP	\$100	\$15	\$30	\$45	\$30	\$60	\$90	\$1,350	SAAO	1.0078
24	COP	\$100	\$5	\$20	\$40	\$10	\$40	\$80	\$1,350	SAAO	1.0061
25	COP	\$150	\$20	\$80	\$100	\$40	\$160	\$200	\$1,350	SAAO	1.0104
26	COP	\$50	\$10	\$20	\$35	\$20	\$40	\$70	\$1,350	SAAO	1.0057
27	COP	\$50	\$10	\$25	\$50	\$20	\$50	\$100	\$1,350	SAAO	1.0065
28	COP	\$50	\$10	\$30	\$50	\$20	\$60	\$100	\$1,350	SAAO	1.0069
29	COP	\$50	\$5	\$10	\$25	\$10	\$20	\$50	\$1,350	SAAO	1.0044

<sup>\*</sup> Type: COI = coinsurance; COP = copay; CM1 = combined (COP/COI/COI); CM2 = combined (COP/COP/COI) \* Diabetic: If "100%" then Diabetic medications and supplies are covered at 100% of allowed charges;

If "SAAO" then Diabetic medications and supplies are subject to cost sharing same as any other prescription drug.

## Express Scripts Open Specialty Contract Adjustment Factors

#### Projection Beginning

							Trojection							
		7/1/2019						1/1/2020		3/1/2020	4/1/2020	5/1/2020		7/1/2020
	7/1/2015	0.9325	0.9323	0.9321	0.9319	0.9317	0.9315	0.9312	0.9310	0.9308	0.9306	0.9304	0.9302	0.9300
	8/1/2015	0.9335	0.9333	0.9331	0.9329	0.9327	0.9325	0.9323	0.9320	0.9318	0.9316	0.9314	0.9312	0.9310
	9/1/2015	0.9345	0.9343	0.9341	0.9339	0.9337	0.9335	0.9333	0.9331	0.9329	0.9326	0.9324	0.9322	0.9320
	10/1/2015	0.9356	0.9354	0.9351	0.9349	0.9347	0.9345	0.9343	0.9341	0.9339	0.9337	0.9334	0.9332	0.9330
	11/1/2015	0.9366	0.9364	0.9362	0.9360	0.9357	0.9355	0.9353	0.9351	0.9349	0.9347	0.9345	0.9343	0.9340
	12/1/2015	0.9376	0.9374	0.9372	0.9370	0.9368	0.9366	0.9363	0.9361	0.9359	0.9357	0.9355	0.9353	0.9351
	1/1/2016	0.9386	0.9384	0.9382	0.9380	0.9378	0.9376	0.9374	0.9372	0.9369	0.9367	0.9365	0.9363	0.9361
	2/1/2016	0.9397	0.9395	0.9392	0.9390	0.9388	0.9386	0.9384	0.9382	0.9380	0.9378	0.9375	0.9373	0.9371
	3/1/2016	0.9407	0.9405	0.9403	0.9401	0.9398	0.9396	0.9394	0.9392	0.9390	0.9388	0.9386	0.9384	0.9381
	4/1/2016	0.9417	0.9415	0.9413	0.9411	0.9409	0.9407	0.9405	0.9402	0.9400	0.9398	0.9396	0.9394	0.9392
	5/1/2016	0.9428	0.9426	0.9423	0.9421	0.9419	0.9417	0.9415	0.9413	0.9411	0.9408	0.9406	0.9404	0.9402
	6/1/2016	0.9438	0.9436	0.9434	0.9432	0.9430	0.9427	0.9425	0.9423	0.9421	0.9419	0.9417	0.9415	0.9412
	7/1/2016	0.9448	0.9446	0.9444	0.9442	0.9440	0.9438	0.9436	0.9433	0.9431	0.9429	0.9427	0.9425	0.9423
	8/1/2016	0.9454	0.9452	0.9450	0.9448	0.9445	0.9443	0.9441	0.9439	0.9437	0.9435	0.9433	0.9431	0.9428
Е	9/1/2016	0.9460	0.9457	0.9455	0.9453	0.9451	0.9449	0.9447	0.9445	0.9442	0.9440	0.9438	0.9436	0.9434
x	10/1/2016	0.9465	0.9463	0.9461	0.9459	0.9457	0.9454	0.9452	0.9450	0.9448	0.9446	0.9444	0.9442	0.9440
p	11/1/2016	0.9471	0.9469	0.9466	0.9464	0.9462	0.9460	0.9458	0.9456	0.9454	0.9452	0.9449	0.9447	0.9445
e	12/1/2016	0.9476	0.9474	0.9472	0.9470	0.9468	0.9466	0.9464	0.9461	0.9459	0.9457	0.9455	0.9453	0.9451
r	1/1/2017	0.9482	0.9480	0.9478	0.9476	0.9473	0.9471	0.9469	0.9467	0.9465	0.9463	0.9461	0.9458	0.9456
i	2/1/2017	0.9519	0.9516	0.9514	0.9512	0.9510	0.9508	0.9506	0.9504	0.9501	0.9499	0.9497	0.9495	0.9493
e	3/1/2017	0.9556	0.9553	0.9551	0.9549	0.9547	0.9545	0.9543	0.9540	0.9538	0.9536	0.9534	0.9532	0.9530
n	4/1/2017	0.9593	0.9591	0.9588	0.9586	0.9584	0.9582	0.9580	0.9578	0.9575	0.9573	0.9571	0.9569	0.9567
С	5/1/2017	0.9630	0.9628	0.9626	0.9624	0.9621	0.9619	0.9617	0.9615	0.9613	0.9611	0.9608	0.9606	0.9604
e	6/1/2017	0.9668	0.9666	0.9664	0.9661	0.9659	0.9657	0.9655	0.9653	0.9650	0.9648	0.9646	0.9644	0.9642
	7/1/2017	0.9706	0.9704	0.9702	0.9699	0.9697	0.9695	0.9693	0.9691	0.9688	0.9686	0.9684	0.9682	0.9680
В	8/1/2017	0.9744	0.9742	0.9740	0.9037	0.9735	0.9733	0.9731	0.9729	0.9726	0.9724	0.9722	0.9720	0.9718
e	9/1/2017	0.9782	0.9780	0.9778	0.9776	0.9773	0.9771	0.9769	0.9767	0.9765	0.9762	0.9760	0.9758	0.9756
g	10/1/2017	0.9821	0.9819	0.9816	0.9776	0.9812	0.9810	0.9808	0.9805	0.9803	0.9801	0.9799	0.9796	0.9794
i	11/1/2017	0.9860	0.9857	0.9855	0.9853	0.9851	0.9849	0.9846	0.9844	0.9842	0.9840	0.9837	0.9790	0.9833
n	12/1/2017	0.9899	0.9897	0.9894	0.9892	0.9890	0.9888	0.9885	0.9883		0.9879	0.9837	0.9833	
n	1/1/2017	0.9899	0.9897	0.9894	0.9892	0.9890	0.9666	0.9885	0.9663	0.9881 0.9920	0.9879	0.9877	0.9874	0.9872 0.9911
i	2/1/2018	0.9938	0.9936	0.9934	0.9932	0.9929	0.9927	0.9923	0.9923	0.9926	0.9916	0.9916	0.9914	0.9911
n	3/1/2018						0.9933		0.9928					0.9917
g		0.9950	0.9948	0.9945	0.9943	0.9941		0.9936		0.9932	0.9930	0.9927	0.9925	
	4/1/2018	0.9956	0.9953	0.9951	0.9949	0.9947	0.9944	0.9942	0.9940	0.9938	0.9935	0.9933	0.9931	0.9929
	5/1/2018	0.9961	0.9959	0.9957	0.9955	0.9952	0.9950	0.9948	0.9946	0.9943	0.9941	0.9939	0.9937	0.9934
	6/1/2018	0.9967	0.9965	0.9963	0.9960	0.9958	0.9956	0.9954	0.9951	0.9949	0.9947	0.9945	0.9942	0.9940
	7/1/2018		0.9971	0.9968	0.9966	0.9964	0.9962	0.9959	0.9957	0.9955	0.9953	0.9950	0.9948	0.9946
	8/1/2018			0.9971	0.9968	0.9966	0.9964	0.9962	0.9959	0.9957	0.9955	0.9953	0.9950	0.9948
	9/1/2018				0.9971	0.9968	0.9966	0.9964	0.9962	0.9959	0.9957	0.9955	0.9953	0.9950
	10/1/2018					0.9971	0.9968	0.9966	0.9964	0.9962	0.9959	0.9957	0.9955	0.9953
	11/1/2018						0.9971	0.9968	0.9966	0.9964	0.9962	0.9959	0.9957	0.9955
	12/1/2018							0.9971	0.9968	0.9966	0.9964	0.9962	0.9959	0.9957
	1/1/2019								0.9971	0.9968	0.9966	0.9964	0.9962	0.9959
	2/1/2019									0.9971	0.9968	0.9966	0.9964	0.9962
	3/1/2019										0.9971	0.9968	0.9966	0.9964
	4/1/2019											0.9971	0.9968	0.9966
	5/1/2019												0.9971	0.9968
	6/1/2019													0.9971
	·													

## Express Scripts Specialty Pharmacy Exclusive Contract Adjustment Factors

Projection	Beginning

		7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	6/1/2020	7/1/2020
	9/1/2017	0.9679	0.9677	0.9675	0.9673	0.9671	0.9668	0.9666	0.9664	0.9662	0.9659	0.9657	0.9655	0.9653
E	10/1/2017	0.9734	0.9732	0.9730	0.9728	0.9725	0.9723	0.9721	0.9719	0.9717	0.9714	0.9712	0.9710	0.9708
x	11/1/2017	0.9797	0.9795	0.9793	0.9791	0.9788	0.9786	0.9784	0.9782	0.9780	0.9777	0.9775	0.9773	0.9771
р	12/1/2017	0.9861	0.9859	0.9857	0.9855	0.9852	0.9850	0.9848	0.9846	0.9843	0.9841	0.9839	0.9837	0.9834
e	1/1/2018	0.9926	0.9924	0.9922	0.9919	0.9917	0.9915	0.9913	0.9910	0.9908	0.9906	0.9903	0.9901	0.9899
r	2/1/2018	0.9934	0.9932	0.9929	0.9927	0.9925	0.9923	0.9920	0.9918	0.9916	0.9913	0.9911	0.9909	0.9907
i	3/1/2018	0.9942	0.9939	0.9937	0.9935	0.9932	0.9930	0.9928	0.9926	0.9923	0.9921	0.9919	0.9917	0.9914
е	4/1/2018	0.9949	0.9947	0.9945	0.9943	0.9940	0.9938	0.9936	0.9933	0.9931	0.9929	0.9927	0.9924	0.9922
n	5/1/2018	0.9957	0.9955	0.9953	0.9950	0.9948	0.9946	0.9943	0.9941	0.9939	0.9937	0.9934	0.9932	0.9930
c	6/1/2018	0.9965	0.9963	0.9960	0.9958	0.9956	0.9953	0.9951	0.9949	0.9947	0.9944	0.9942	0.9940	0.9938
е	7/1/2018		0.9970	0.9968	0.9966	0.9964	0.9961	0.9959	0.9957	0.9954	0.9952	0.9950	0.9948	0.9945
В	8/1/2018			0.9968	0.9966	0.9964	0.9961	0.9959	0.9957	0.9954	0.9952	0.9950	0.9948	0.9945
e	9/1/2018				0.9966	0.9964	0.9961	0.9959	0.9957	0.9954	0.9952	0.9950	0.9948	0.9945
g	10/1/2018					0.9964	0.9961	0.9959	0.9957	0.9954	0.9952	0.9950	0.9948	0.9945
i	11/1/2018						0.9964	0.9962	0.9960	0.9957	0.9955	0.9953	0.9951	0.9948
n	12/1/2018							0.9965	0.9963	0.9960	0.9958	0.9956	0.9954	0.9951
n	1/1/2019								0.9966	0.9963	0.9961	0.9959	0.9957	0.9954
i	2/1/2019									0.9967	0.9964	0.9962	0.9960	0.9957
n	3/1/2019										0.9967	0.9965	0.9963	0.9960
g	4/1/2019											0.9968	0.9966	0.9963
	5/1/2019												0.9969	0.9966
	6/1/2019													0.9970

# Tier Factors for Benefits with Separate Medical and Pharmacy Deductibles

		2-Ti	2-Tier 3-Tier				4-Tier			
Out-of-Pocket								Subscriber	Subscriber	
Range	Type	Single	Family	Single	2-Person	Family	Single	& Spouse	& Children	Family
NA/Stacked	2x Family	1.000	2.376	1.000	2.000	2.822	1.000	2.000	1.746	2.911
NA/Stacked	2.5x Family	1.000	2.370	1.000	2.000	2.811	1.000	2.000	1.744	2.900
NA/Stacked	3x Family	1.000	2.369	1.000	2.000	2.808	1.000	2.000	1.744	2.896
\$0 - \$3,499	Hybrid	1.000	2.292	1.000	1.817	2.742	1.000	1.909	1.673	2.831
\$3,500 - \$4,999	Hybrid	1.000	2.203	1.000	1.747	2.636	1.000	1.837	1.595	2.724
\$5,000 - \$7,350	Hybrid	1.000	2.211	1.000	1.761	2.637	1.000	1.853	1.595	2.726

## Tier Factors for Benefits with Integrated Medical and Pharmacy Deductibles

		2-Ti	er		3-Tier			4-	Tier	
Out-of-Pocket								Subscriber	Subscriber	
Range	Type	Single	Family	Single	2-Person	Family	Single	& Spouse	& Children	Family
NA/Stacked	2x Family	1.000	2.376	1.000	2.000	2.822	1.000	2.000	1.746	2.911
NA/Stacked	2.5x Family	1.000	2.370	1.000	2.000	2.811	1.000	2.000	1.744	2.900
NA/Stacked	3x Family	1.000	2.369	1.000	2.000	2.808	1.000	2.000	1.744	2.896
\$0 - \$3,499	Aggregate	1.000	2.269	1.000	1.776	2.737	1.000	1.872	1.617	2.831
\$3,500 - \$4,999	Aggregate	1.000	2.189	1.000	1.715	2.639	1.000	1.810	1.549	2.732
\$5,000 - \$7,350	Aggregate	1.000	2.118	1.000	1.662	2.551	1.000	1.754	1.496	2.642
\$0 - \$3,499	Hybrid	1.000	2.269	1.000	1.776	2.737	1.000	1.872	1.617	2.831
\$3,500 - \$4,999	Hybrid	1.000	2.195	1.000	1.722	2.643	1.000	1.817	1.555	2.735
\$5,000 - \$7,350	Hybrid	1.000	2.217	1.000	1.772	2.639	1.000	1.868	1.584	2.730

# **Example of Manual Rate Adjustment**

Manual Rate	\$536.12
Average Age/Gender Factor	1.000
Projection Period	1/1/2020
Trend Factor	7.50%

Group Information Active

Age/Gender Factor 0.940

Contract Conversion	Contract Distribution	Members	Tier Factor	"Contract Tiers"
Single	25	25	1	25
Two-Person	25	50	2.000	50
Family	50	197	2.822	141.09
	100	272		216.09

		Active
Manual Rate	Α	\$536.12
Adjustment for Age/Gender	B = 0.94 / 1	0.9400
Pharmacy Contract Adjustment	C =	0.9986
Contract Conversion Factor	D = 216.09 / 272	1.2587
Adjusted Manual Rate	$E = A \times B \times C \times D$	\$633.49

# BLUE CROSS AND BLUE SHIELD OF VERMONT 2020 ASSOCIATION HEALTH PLAN RATING PROGRAM FILING ADMINISTRATIVE CHARGES DEVELOPMENT

# Reconciliation of Experience Base Administrative Expense to Restated GAAP Expenses (Dollars in 000's)

	11/17 - 10/18	Reconciliation to GAAP (1)				
	Experience		Reclassification	Reported		
Business Segment	Base	Commissions	Items <sup>(2)</sup>	Expenses		
Large Group						
BCBSVT Insured	\$6,055	\$1,534	(\$1,876)	\$9,466		
TVHP Insured	\$2,125	\$376	(\$389)	\$2,890		
Insured Large Group Subtotal	\$8,181	\$1,910	(\$2,265)	\$12,356		
BCBSVT Cost Plus <sup>(3)</sup> and ASO	\$27,060	\$1,002	(\$1,064)	\$29,126		
Individual/Other						
BCBSVT Small Group (QHP and Non-QHP)	\$14,554	\$0	(\$5,079)	\$19,632		
BCBSVT Individual (QHP and Non-QHP)	\$12,764	\$0	(\$4,056)	\$16,819		
TVHP Small Group	\$0	\$0	\$0	\$0		
Medicare Supplement	\$1,346	\$1	(\$83)	\$1,430		
TVHP Medigap Blue	\$2,844	\$3	(\$165)	\$3,012		
Other Member Categories						
FEP	\$4,100	\$0	(\$1,521)	\$5,621		
Blue MedicareRx	\$1,140	\$0	(\$86)	\$1,225		
Other Categories						
CBA	\$9,764	\$8	(\$63)	\$9,835		
Host	\$1,318	\$0	(\$155)	\$1,473		
HWP	\$278	\$0	\$0	\$278		
Total	\$83,348	\$2,924	(\$14,536)	\$100,808		

#### Notes:

- (1) Sources: Commissions and Reclassification Items are from Internal BCBSVT reports. Reported Expenses are from Underwriting Results GAAP Basis, restated for the new allocation, for the Experience Base period.
- (2) Reclassification Items include the removal of federal fees, GMCB billback, and fees paid to our vendor Health Equity for the administration of Health Savings Accounts and Health Reimbursement Accounts linked to our insurance products.
- (3) Allocation of expenses for Cost Plus members with Med Supp coverage based on cost PMPM for insured Med Supp members. In GAAP financials, expenses are included in Large Group Cost Plus.

# BLUE CROSS AND BLUE SHIELD OF VERMONT 2020 ASSOCIATION HEALTH PLAN RATING PROGRAM FILING ADMINISTRATIVE CHARGES DEVELOPMENT

# Administrative Charges PUPM

							Large Group
Unit		Account	Member	Contract	Medical Claim	Projected Claims	Subtotal
Administrative Expenses	Α	\$1,209,304	\$3,220,572	\$353,804	\$590,323	\$2,806,731	\$8,180,734
Unit Months	В	801	178,387	92,657	454,003	\$97,490,938	
Expense PUPM	C = A / B	\$1,509.74	\$18.05	\$3.82	\$1.30		
Increase for Membership	D	1.0%	1.0%	1.0%	1.0%		
Updated Expense PUPM	$E = (1+D) \times C$	\$1,525.16	\$18.24	\$3.86	\$1.31	3.0%	
Annual Trend	F	2.5%	2.5%	2.5%	2.5%	2.5%	
Monthly Trend Factor	$G = (1+F)^{(1/12)}$	1.0021	1.0021	1.0021	1.0021	1.0021	
Months of Trend to First Effective Period	Н	14	14	14	14	14	
Projection Periods							
Effective Date		Account	Member	Contract	Medical Claim	<b>Projected Claims</b>	
Jan-19	$I = E \times G \wedge (H)$	\$1,569.82	\$18.77	\$3.97	\$1.35	3.0%	
Feb-19	$J = I \times G$	\$1,573.06	\$18.81	\$3.98	\$1.35	3.0%	
Mar-19	$K = J \times G$	\$1,576.30	\$18.85	\$3.99	\$1.36	3.0%	
Apr-19		\$1,579.56	\$18.89	\$3.99	\$1.36	3.0%	
May-19		\$1,582.82	\$18.93	\$4.00	\$1.36	3.0%	
Jun-19		\$1,586.08	\$18.97	\$4.01	\$1.37	3.0%	
Jul-19		\$1,589.36	\$19.01	\$4.02	\$1.37	3.0%	
Aug-19		\$1,592.64	\$19.05	\$4.03	\$1.37	3.0%	
Sep-19		\$1,595.92	\$19.08	\$4.04	\$1.37	3.0%	
Oct-19		\$1,599.22	\$19.12	\$4.04	\$1.38	3.0%	
Nov-19		\$1,602.52	\$19.16	\$4.05	\$1.38	3.0%	
Dec-19		\$1,605.82	\$19.20	\$4.06	\$1.38	3.0%	
Jan-20		\$1,609.14	\$19.24	\$4.07	\$1.39	3.0%	
Feb-20		\$1,612.46	\$19.28	\$4.08	\$1.39	3.0%	
Mar-20		\$1,615.79	\$19.32	\$4.09	\$1.39	3.0%	
Apr-20		\$1,619.12	\$19.36	\$4.09	\$1.39	3.0%	